



2019 NATIONAL PAINTING COST ESTIMATOR

By Dennis D. Gleason, CPE

SAMPLE

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6058 Corte del Cedro, Carlsbad, CA 92011

Acknowledgments

The author thanks the following individuals and organizations for furnishing materials and information used in the preparation of various portions of this book.

Howard Shahan, *American Design Painting & Drywall*, Poway, CA
American Society of Professional Estimators (ASPE), Wheaton, MD
Benjamin Moore Paints, San Diego, CA
Gordon H. Brevcort, *Brevcort Consulting Associates*, Ridgewood, NJ
Luis Anguiano, *CSI Paint*, Napa, CA
Scott Williams, *CSI Paint*, San Francisco, and Napa, CA
John San Marcos, *Devoe Coatings*, San Diego Marine Hardware, San Diego, CA
Ken Hogben, *Dunn-Edwards Paints & Wallcovering*, San Francisco, CA
Randy Martin, *Dunn-Edwards Paints & Wallcovering*, La Mesa, CA
Bob Langbein, *East Bay Paint Center*, Albany, CA
Hugh Champeny, *Kelly-Moore Paint Company*, San Carlos, CA
Eli Dominguez, *Kelly-Moore Paint Company*, Pleasant Hill, CA
Dennis Cripe, *R.W. Little Co, Inc.*, *Sandblasting*, San Diego, CA
Chris Rago, *Mark's Paint Mart*, Oakland, CA
Bruce McMullan, *McMullan & Son Painting*, San Diego, CA
Joe Garrigan, *Mr. Paints*, San Diego, CA
PPG Industries, Inc., *Pittsburgh Paints*, Torrance, CA
Carlos Jeronimo, *PPG Paints*, Santa Clara, CA
Keith Braswell, *Rent-X*, Pleasant Hill, CA
Richardson Engineering Services, Inc., Mesa, AZ
Rust-Oleum Protective Coatings, Los Angeles, CA
Squires-Belt Material Co., San Diego, CA
Steel Structures Painting Council, Pittsburgh, PA
John Meyer, *U.S. Government, Department of the Navy, Public Works*, San Diego, CA
Miguel Govea, *Vista Paint Centers*, San Diego, CA
Jerry Rittgarn, *Waco-Arise Scaffolding & Equipment*, San Diego, CA
Mark Janson, *Warehouse Paint*, Auburn, CA

Cover design by: *Jennifer Johnson*
Sheila M. Scott, Calligraphy

©2018 Craftsman Book Company
ISBN 978-1-57218-346-9 ISSN 1092-6852
Published December 2018 for the year 2019

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How to Use This Book

Paint estimating is more of an art than a science. There's no price that's exactly right for every job and for every bidder. That's because every painting job is unique. No single material cost, no labor estimate, no pricing system fits all types of work. And just as every job varies, so do painting companies. No two painting contractors have the same productivity rates, the same labor burden, the same overhead expense and the same profit requirements.

The best paint estimates are always custom-made for a particular job. They're based on the contractor's actual productivity rate, material cost, labor cost, overhead percentage and profit expectations. No estimating book, no computerized estimating system, no estimating service can possibly account for all the variables that make every job and every painting company different. Only a skilled estimator using professional judgment and a proven estimating system can produce consistently reliable estimates on a wide variety of painting jobs.

So, Why Buy This Book?

That's easy. This is the most complete, authoritative and reliable unit cost guide ever made available to paint estimators. No matter what types of work you estimate, no matter what your costs are, this book will help produce consistently accurate painting cost estimates in dollars and cents. But it isn't a substitute for expertise. It's not a simple way to do in minutes what an experi-

enced paint estimator might not be able to do in hours. Instead, this unit cost guide will aid you in developing a good estimate of costs for any painting operation on any project. Think of this manual as one good estimating tool. But it's not (or at least shouldn't be) the only estimating tool you'll use.

For most jobs, I expect that the figures you see here will prove to be good estimates. But anyone who understands paint estimating will understand why judgment is needed when applying figures from this manual — or any other paint estimating guide. It's your responsibility to decide which conditions on the job you're bidding are like conditions assumed in this manual, and which conditions are different. Where conditions are different, you'll need good professional judgment to arrive at a realistic estimated cost.



When the National Estimator program has been installed, click Help on the menu bar to see a list of topics that will get you up and running. Or, go online to www.craftsman-book.com and click on Support, then Tutorials, to view an interactive tutorial for National Estimator.

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	Manhour productivity	Labor cost per hour	Labor burden percent	Labor burden dollars	Labor cost plus burden	Material price discount	Overhead percent	Profit
Slow (1P)	Low	\$21.50	24.0%	\$5.16	\$26.66	20%	19.0%	16%
Medium (2P)	Average	27.75	28.9%	8.02	35.77	30%	25.0%	12%
Fast (3P)	High	34.75	35.3%	12.27	47.02	40%	31.0%	7%

Notes: These rates are for painters. Hourly rates for wallcovering are different. See page 29. Slow, Medium and Fast jobs are defined on page 13. Labor burden percentages used in this book are summarized on page 31. National Estimator uses hourly rates in the Labor cost plus burden column. National Estimator shows productivity rates (Slow, Medium and Fast) and copies the words Slow, Medium or Fast to your estimate. It also copies the crew productivity code, either 1P (Slow), 2P (Medium), or 3P (Fast) to your estimating form. National Estimator allows you to enter any percentage you select for overhead and profit.

Figure 1

The basis for painting cost estimates in this book

How to Use the Tables

The estimating tables in this book show typical costs and bid prices for every painting operation you're likely to encounter, whether paint is applied by brush, roller, mitt or spray. Selecting the right cost table and the correct application method is easy. Tables are divided into four parts:

Part I: General Painting Costs

Part II: Preparation Costs

Part III: Industrial, Institutional and Heavy Commercial Painting Costs

Part IV: Wallcovering Costs

Each section is arranged alphabetically by operation. If you have trouble finding the tables you need, use the Table of Contents at the front of the book or the Index at the back of the book.

Once you've found the right table and the appropriate application method, you have to select the correct application rate. For each of the application methods (brush, roll, mitt or spray), the tables show three application rates: "Slow," "Medium," or "Fast." That's a very important decision when using this book, because each application rate assumes different manhour productivity, material coverage, material cost per gallon, hourly labor cost, labor burden, overhead and profit.

Your decision on the application rate to use (or which combination of rates to use) has to be based on your evaluation of the job, your painters and your company. That's where good common sense is needed.

Figure 1 shows crew codes, labor costs, labor burdens, material discounts, and profit for each of the three production rates for painting.

The "Slow" application rate in Figure 1 assumes lower productivity (less area covered per manhour), a lower labor cost (due to a less skilled crew), a lower labor burden (due to lower fringe benefits), a lower discount on materials (because of low volume), higher overhead (due to lower volume) and a higher profit margin (typical on small repaint or custom jobs). Figures in this "Slow" application row will apply where painters with lower skill levels are working on smaller or more difficult repaint jobs.

Look at the "Fast" row in Figure 1. These estimates will apply where a skilled crew (higher hourly rate and larger fringe benefits) is working under good supervision and good conditions (more area covered per manhour) on larger (volume discount on materials) and more competitive jobs (lower profit margin). Figures in the "Fast" application row assume high productivity and lower material coverage, (unpainted surfaces absorb more paint), like that of a residential tract job.

Each of the three application rates is described more completely later in this section.

	Pricing variables			Unit cost estimate					
	1	2	3	4	5	6	7	8	9
	Labor SF per man- hour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total cost per 100 SF
Walls, gypsum drywall, orange peel or knock-down, roll, per 100 SF of wall area									
Flat latex, water base (material #5)									
Roll 1st coat									
Slow	400	300	34.60	5.38	1.29	11.53	3.46	3.47	25.13
Medium	538	275	30.30	5.16	1.49	11.02	4.42	2.65	24.74
Fast	675	250	26.00	5.15	1.81	10.40	5.38	1.59	24.33
Your customized figures				3.11	.75	11.02	3.72	2.23	20.83

Figure 2
Customize the tables

The Easy Case: No Adjustments

Let's suppose the "Slow" application rate fits the job you're estimating almost perfectly. Your crew's productivity is expected to be low. The labor cost will be \$21.50 per hour. Labor burden (fringes, taxes and insurance) will be 24.0 percent. Discount on materials will be 20 percent. Overhead will be 19 percent and profit will be 16 percent. Then your task is easy. All of your costs match the costs in the "Slow" row. No modifications are needed. The same is true if your costs fit the "Medium" or "Fast" rows.

But that's not always going to happen. More often, the job, your crew and your company won't fit exactly into any of the three rows. What then? More evaluation is required. You'll combine costs from several application rate rows to reach an accurate bid price. I call that *customizing your costs* and it's nearly always required for an accurate estimate.

Customizing Your Costs

Every company has a different combination of work-speed and experience, taxes, benefits, spread rates, equipment needs, percentage for overhead, and profit margin. These are the cost variables in paint estimating.

This book is designed so you can quickly and easily adjust estimates to reflect actual costs on the job you're estimating. It's important that you *read the rest of this section before using the cost tables in this book*. That's the only way to get from this manual all the accuracy and flexibility that's built into it.

In the remainder of this section I'll describe the assumptions I've made and the methods I used to compile the cost tables in this manual. Once you understand them, you'll be able to combine and modify costs in the estimating tables so your bids fit the job, your crew and your company as closely as possible.

When you start using the cost tables in this book, I suggest you circle numbers in the "Slow," "Medium," or "Fast" application rate rows that best fit your company and your jobs. To improve accuracy even more, write your own figures in the blank row below the "Fast" row in each table, like I've done in Figure 2.

A Practical Example

Figure 2 is part of an estimating table taken from page 228 of this book, General Painting Costs. I'm going to use it to show how to customize estimates to match

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your actual costs. In Figure 2 I've circled some of the costs I plan to use in a sample estimate and calculated others.

In column 1, *Labor SF per manhour*, I've circled 675 because I feel the journeyman painter assigned to this job can paint walls at the "Fast" rate of 675 square feet per hour. That's the number I plan to use for my estimate.

In column 2, *Material coverage SF/gallon*, I've reviewed my past performance and I expect coverage will be about 275 square feet per gallon of paint. So I've circled that figure.

In column 3, *Material cost per gallon*, I've circled 30.30 for my cost per gallon for flat water base latex (including tax and an allowance for consumable supplies), based on a 30 percent discount from the retail price.

So far, so good. That completes the first three columns, what I call the *pricing variables*. Now we can begin on the *unit cost estimate*, columns 4 through 9. Each of these columns show a price per 100 square feet of wall.

We'll start with column 4, *Labor cost per 100 SF*. Notice that I've entered 3.11 for this column. Here's why. Look back at Figure 1 and the "Slow" labor rate at \$21.50. (See Figure 13 on page 29 for the wage rates for wallcovering.) Since I'm in a part of the country where prices, and wages, are lower than the national average, my experienced painters work for \$21, closer to the "Slow" labor cost, though they produce at the "Fast" rate of 675 SF per manhour. This gives me an advantage because my labor costs are lower than those in Figure 1. To calculate the labor cost per 100 SF, divide \$21.00 by 675 and multiply by 100: $21/675 = .0311 \times 100 = 3.11$.

In column 5, *Labor burden 100 SF*, I've entered .75. This figure is a result of my labor cost at \$3.11 x 24.0 percent, my labor burden (taxes, insurance and benefits) from the "Slow" row of Figure 1. Even though the labor rate is "Fast" and the labor cost is higher than the "Slow" rate, for this example labor burden will be most like work done at the "Slow" rate because this company doesn't offer many benefits.

In column 6, *Material cost per 100 SF*, I've circled 11.02, the number in the "Medium" row. Since I've used numbers in the "Medium" row in both columns 2 and 3, I can take the figure in column 6 for material costs directly from the table, without any calculations.

In column 7, *Overhead per 100 SF*, I've calculated the overhead dollar value by adding the labor cost, labor burden and material cost then multiplying that sum by the "Medium" overhead at 25 percent: $\$3.11 + \$0.75 + \$11.02 = \$14.88 \times .25 = \$3.72$.

In column 8, *Profit per 100 SF*, I've calculated the profit dollar value by adding the labor cost, labor burden, material cost and overhead then multiplying that sum by the "Medium" profit at 12 percent from Figure 1. The result is $\$3.11 + \$0.75 + \$11.02 + \$3.72 = \$18.60 \times .12 = \2.23 .

Column 9, *Total cost per 100 SF*, is the bid price — it's the sum of columns 4 through 8 for each row. Because I've circled costs that fall in more than one row, I can't use any figure in column 9. Instead, I simply add the circled or calculated figures in columns 4 through 8: $\$3.11 + \$0.75 + \$11.02 + \$3.72 + \$2.23 = \20.83 . That's my bid price per 100 square feet on this job. It's the combination of costs that fit my company, my painters and the job.

Using Your Good Judgment

Of course, judgment is required when using these tables, as it is when making any estimate. For example, if your journeymen painters earn the top rate of \$34.75 but work at the "Medium" production rate or slower, your labor cost per unit will be higher than the highest cost listed in column 4. An adjustment will be required.

Because figures in columns 7 and 8 are percentages of figures in columns 4, 5 and 6, you have to be careful when you blend costs from different rows. Let's look at an extreme (and unlikely) example.

Suppose you use costs from the "Slow" application row for columns 4 (5.38), 5 (1.29) and 6 (11.53) of Figure 2. The total of those three costs is \$18.20. Then you decide to use overhead from the "Fast" row because your overhead is about 31 percent of cost, not 19 percent of cost as in the "Slow" row (Figure 1). "Fast" overhead is listed as \$5.38 in Figure 2. The correct overhead figure is \$5.64, 31 percent of the sum of "Slow" costs in columns 4, 5 and 6. Be aware of this small discrepancy and calculate figures for all the categories yourself if extreme accuracy is essential.

Converting Unit Prices

The last column in Figure 2 shows the total cost per 100 square feet of wall. Some estimating tables in this book show a total cost per 100 linear feet (such as for baseboard) or total costs per unit (such as for doors). To convert a cost per 100 square feet to a cost per square foot, move the decimal point two places to the left. Thus the cost per 100 square feet for the “Fast” rate in Figure 2 is \$24.33 or about 24 cents per square foot.

General Qualifications

It’s important that you understand the conditions the tables are based upon. I call these conditions the job qualifications. A qualifications statement follows each estimating table to help you understand what’s included and what’s excluded. Please read those *qualifications* before using costs from this manual in your estimates. The following points apply to *all* tables in this book:

Included Costs

- Minor preparation, both time and material. Normal preparation for new residential construction is included in the “Fast” row and for new commercial jobs in the “Medium” row. Minimal preparation is included for repaint jobs in the “Slow” row.
- Minimum setup and cleanup
- Equipment such as ladders, spray rigs and brushes are included in overhead for the “Fast” rate (residential tracts) or “Medium” (commercial) work. Add equipment costs at their rental rate for “Slow” (repaint) jobs.

Excluded Costs

- Equipment costs such as ladders, spray rigs, etc. for “Slow” (repaint) jobs. Add these at their rental rate whether or not you own the equipment.
- Extensive surface preparation. Add the cost of time and materials needed for more than “normal” preparation work. Also add time to remove and replace hardware and accessories, protect

adjacent surfaces, and do any extensive setup, cleanup, or touchup. (See the discussion of SURRPTUCU on the next page.)

- Mobilization or demobilization
- Supervision
- Material handling, delivery, or storage
- Sample preparation
- Mixing coatings
- Excessive material waste or spillage
- Equipment rental or placement costs
- Scaffolding rental and erection costs
- Subcontract costs
- Contingency allowance
- Owner allowances
- Commissions, bonuses, overtime, premium pay for shift adjustments (evening work), travel time or per diem.
- Bonds, fees, or permits
- Additional insurance to meet owner requirements
- Work at heights above 8 feet or beyond the reach of a wand or extension pole. (See the table for High Time Difficulty Factors on page 139.)

Surface Preparation

The Preparation estimating tables that follow Part I: General Painting Costs, apply to both interior and exterior surfaces.

Surface preparation is one of the hardest parts of the job to estimate accurately. Any experienced painter can make a reasonably good estimate of the quantity of paint and time needed for application. But the amount of prep work needed will vary widely — especially for repaint jobs. Some will need very little work. Others will take more time for prep than for painting.

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Preparation work for new construction jobs is relatively standard and consistent. You'll have to mask cabinets before spraying sealer on wet area walls, caulk at the baseboards, putty the nail holes in wood trim, and occasionally use a wire brush to smooth and clean a surface. The time required for this work is fairly predictable.

Labor cost for normal preparation of unpainted surfaces in new residential construction is included in the "Fast" *labor* costs and for new commercial construction in the "Medium" *labor* cost. The cost of materials for normal surface preparation on unpainted surfaces is included in the sundries allowance that's part of the "Fast" or "Medium" material cost.

But if more than normal surface prep work is needed, estimate the extra manhours and materials required and add these costs to your estimate.

Add for Repaint Preparation

The "Slow" unit costs include no surface preparation other than a quick wipedown. Preparation on a repaint job may take longer than the painting itself. That's why you have to estimate surface prep as a separate item and add that cost to your estimate.

A misjudgment in estimating preparation work can be very expensive. That's why I recommend that you bid surface preparation by the hour, using your shop rate for "time and material" jobs, or some other specified hourly rate. That protects you against cost overruns if the preparation takes longer than anticipated. But there's a danger here. Owners may be angry about the cost because they don't understand what's involved in preparation and why it takes so long. You can avoid this with a "not to exceed" bid that contains a maximum price for the prep work. Your bid should define the scope of preparation work in detail and list exactly what's included and excluded. Be sure to consider all the labor, material, and equipment costs involved.

If you have to bid repaint work, be sure to include all the miscellaneous costs. The acronym I use to identify these miscellaneous costs is SURRPTUCU: Setup (SU), Remove and Replace (RR), Protection (P), Touchup (TU) and Cleanup (CU). Add these costs to your repaint estimate if they require anything beyond minimum attention.

- 1) *Setup* includes unloading the vehicle, spreading the tarp and setting up the tools — everything that has to be done before prep or painting can begin.
- 2) Remove and replace everything that will interfere with painting, including door and cabinet hardware, the contents of cabinets, light fixtures, bathroom accessories, switch covers and outlet plates, among others.
- 3) *Protection* for furniture and adjacent surfaces such as floors, cabinets, plumbing or electrical fixtures, windows, and doors. Protection methods include masking, applying visqueen, laying drop cloths and applying a protective coating on windows.
- 4) *Touchup* time varies with the speed and quality of the painting job and how fussy the owner is. The more careful your painters are, the less touchup time needed. You can estimate touchup time accurately only if you know how well your crews perform. The Touchup table in this book is based on a percentage of total job cost.
- 5) *Cleanup* time is usually about the same as setup time, about 20 to 30 minutes each day for repaint jobs. Cleanup time begins when work stops for the day and ends when the crew is back in the truck and ready to go home. It includes cleaning tools, dismantling the paint shop and loading the vehicle.

Subcontractors

Painting contractors don't hire many subcontractors. But once in a while you'll need a specialist for sandblasting, waterblasting, wallcovering, scaffolding or pavement marking. Subcontract costs are not included in the estimating tables. Add the cost of any subcontract work that will be required.

Figure 3 shows some typical rates quoted by sandblasting subcontractors. Of course, prices in your area will probably be different. You could also figure sandblasting unit costs from the sandblasting estimating tables included in Part II, Preparation Costs, in this book.

Minimum charges: \$611.00, scaffolding not included		Epoxy coated - add	1.28 to 1.41/SF
Additional insurance: May be required to cover adjacent personal and real property which may not be protected.		With portable equipment - add	.74 to 1.07/SF
Sandblasting water soluble paints	\$1.07 to 1.22/SF	Commercial blast - 67% white stage	
Sandblasting oil paints	1.13 to 1.28/SF	Field welded, new, uncoated	
Sandblasting heavy mastic		ground runs	1.13 to 1.34/SF
(depends on coating thickness)	1.47 to 1.61/SF	above ground	1.41 to 2.22/SF
Sandblasting brick - light blast	1.07 to 1.22/SF	Previously painted surfaces - add	.68 to 1.22/SF
Sandblasting masonry block walls		Epoxy coated - add	1.22 to 1.41/SF
Clean up & remove grime - light	1.00 to 1.07/SF	With portable equipment - add	.87 to 1.07/SF
- heavy	1.53 to 1.68/SF	Near white blast - 95% white stage	
Sandblasting structural steel		Field welded, new, uncoated	
Pricing rules of thumb:		ground runs	1.34 to 1.54/SF
Pipe up to 12" O.D.	1.53 to 2.28/SF	above ground	1.54 to 2.35/SF
Structural steel up to 2 SF/LF	1.41 to 1.63/SF	Previously painted surfaces - add	.68 to 1.22/SF
Structural steel from 2 to 5 SF/LF	1.68 to 1.88/SF	Epoxy coated - add	1.22 to 1.41/SF
Structural steel over 5 SF/LF	(depends on shape)	With portable equipment - add	.87 to 1.07/SF
Tanks and vessels up to 12'0" O.D.	2.22 to 2.56/SF	White blast - 100% uniform white stage	
Tanks and vessels over 12'0" O.D.	2.22 to 2.56/SF	Field welded, new, uncoated	
Brush off blast - light blast (loose mill scale)		ground runs	2.02 to 2.35/SF
Field welded, new, uncoated		above ground	2.22 to 2.61/SF
ground runs	.68 to .87/SF	Previously painted surfaces - add	.68 to 1.13/SF
above ground	1.00 to 1.88/SF	Epoxy coated - add	1.22 to 1.41/SF
Previously painted surfaces - add	.68 to 1.22/SF	With portable equipment - add	.68 to 1.01/SF

Figure 3
Sandblasting pricing table

Figure 4 shows typical subcontract bids for pavement marking. Again, prices in your area may be different.

If you do much repainting, you'll probably want to buy a waterblasting rig. Even if you own the blaster, include a charge in each estimate for the equipment as though you rented it from a rental yard just for that job. Figure the unit costs for waterblasting from Part II of this book, Preparation Costs.

Consider using a waterblasting subcontractor if you don't need the service often. Figure 5 shows some typical rates for waterblasting. Make up a table like this based on quotes from subcontractors in your area. For a more detailed table, see Sandblasting in the Preparation section, page 303.

When you hire a subcontractor, make sure the quoted price includes everything that contractor has to do — all labor, material (with tax, if applicable), equipment,

overhead and profit. Add your overhead and profit percentage to the subcontractor's bid price when you enter that item on the estimate.

Contingencies

Occasionally you'll add a contingency allowance on bids for repaint projects where there are unknowns that can't be forecast before work actually begins. Contingency allowances are rarely needed when estimating new construction. When necessary, the contingency amount is usually from 3 to 5 percent. It can go higher, however, if there are unusual conditions or unknowns that make it hard to produce an accurate estimate. Include a contingency allowance in your estimates only if you have reason to expect:

- An uncertain scope of work (unknown job conditions)
- An inexperienced owner or general contractor
- Incomplete drawings

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Pricing rules of thumb:

Number of parking spaces: Figure on one space per 300 SF of pavement

Single line striping with light graphics application	\$10.50 per space
Single line striping with heavy graphics application	18.30 per space
Single striping, light graphics and 3' wheel stop	26.00 per space
Single striping, heavy graphics and 3' wheel stop	33.70 per space

Equipment pricing:

Simple "inverted spray can" approximate cost	\$236.00
Professional striping machine cost range	4,860 to 5,350
Professional road/highway striper	270,000

Subcontractor pricing:

Move on:	\$159.00 to 194.00
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Striping prices:

Single line striping	\$.48 to .62 per lineal foot
Bike lane striping	.62 to .72 per lineal foot
Fire lane, red curb	.62 to .72 per lineal foot

Symbol pricing:

Templates - 8'0" template	\$183.00 to 218.00 each
Arrows	41.40 to 48.60 each
Handicap symbol, one color	17.00 to 23.00 each
two color	30.50 to 36.50 each
No parking fire lane stencil	3.29 to 4.01 each

Wheel stops:

3'0" stops	\$23.00 to 29.20 each if pinned on asphalt 30.50 to 36.50 each if glued and pinned
6'0" stops	36.50 to 43.80 each if pinned on asphalt 43.80 to 50.00 each if glued and pinned (add for stops pinned to concrete)

Signs and posts:

Sign only 12" x 18"	\$51.00 to 71.80
Post mounted 12" x 18"	134.00 to 185.00

Pavement markers:

One way pavement markers	\$10.90 each
Two way pavement markers	14.60 each

Figure 4
Pavement marking pricing table

Minimum charges: \$608.00, scaffolding not included	
Additional insurance: May be required to cover adjacent personal and real property	
Pricing rules of thumb:	
Up to 5,000 PSI blast	4 hour minimum \$134.00/hour
5,000 to 10,000 PSI blast	8 hour minimum \$194.00/hour
10,000 PSI blast	8 hour minimum \$240.00/hour
Wet sandblasting	4 hour minimum \$154.00/hour

Figure 5
Waterblasting pricing table

- Delays in beginning the project
- Owner involvement in supervision
- Below-standard working conditions

heading are divided according to coating material, then by application method, and further into the “Slow,” “Medium,” and “Fast” application rates.

Don’t use contingency allowances as a substitute for complete estimates. Include contingency only to cover what can’t be estimated, not what you don’t have time to estimate accurately.

Column 1: Labor Productivity

This column shows units of work completed per manhour. My estimates assume that painters are experienced and motivated professionals. The labor productivity categories are shown in Figure 6.

Column Headings Defined

Take another look at Figure 2. The heading describes the surface to be coated: the type, texture, and often, condition. Sections within each surface

My experience is that a painting company that can handle larger projects will have highly skilled, better qualified and more productive painters. The estimating tables also assume that repainting a surface usually takes about 35 percent more time than painting newly constructed surfaces. Much of this extra time is spent protecting adjacent areas.

Slow	Medium	Fast
Repaint jobs	New commercial projects	New residential production
Custom painting	Industrial painting	Repetitious painting
Tenant improvements	—	—
Small jobs	Medium-sized jobs	Large projects
Single units	Two to four units	Five or more units
Low production	Average production	High production
High difficulty	Average difficulty	Low difficulty
Poor conditions	Average conditions	Good conditions
High quality	Average quality	Minimum quality
Semi-skilled crew	Skilled crew	Highly skilled crew
No supervision	Some supervision	Good supervision

Figure 6
Labor productivity categories

National Painting Cost Estimator

To establish your company's production levels, ask your field superintendent to monitor the time needed to complete each task and to keep records of crew productivity. You can use the Field Production Times and Rates form on pages 419 and 420 to track your painters' productivity. Make copies of the blank form and have your field superintendent or job foreman give one to each painter on every job. Your superintendent should check the forms frequently to insure they are accurate and kept up to date. Your best guide to productivity on future jobs is productivity on jobs already completed, and this form will help you keep track of your production time. Refer back to Figure 2 on page 7. You can use the results collected on these forms to complete the customized figures row under the "Fast" operation in Figure 2 for every operation in the National Painting Cost Estimator. Examples of how to use Figure 2 are on pages 7 through 9. The more you know about your painters' performance, the more accurate your estimates will be. But don't expect your estimates and actual production to always match exactly. Painters are human beings, not robots. You can't expect them to work at the same rate at all times.

Reduced Productivity

The tables in this book assume no overtime work. Excessive overtime puts a strain on your craftsmen and reduces productivity. A few consecutive days of overtime can drag productivity down to well below average. It's good practice not to assign overtime work on more than two consecutive days.

Work efficiency is also lower when men, materials and equipment are confined in a small area or required to work in cluttered, poorly lit or dirty rooms. Painters need elbow room to work efficiently and get maximum productivity. They're also more productive in a clean environment where they can see what they're doing. It's easier — and safer — to work in a well-lighted area that's relatively clear of debris. If the work area is confined or dirty, reduce estimated productivity accordingly.

Supervision

Supervision expense is not included in the cost tables. Add the cost of supervision to your estimates.

Most supervision is done by foremen. Every crew should have a project foreman designated, usually the most experienced and reliable painter on the job. When not supervising, project foremen should be painting.

Thus the project foreman is a working supervisor. Part of the foreman's time will be productive (applying coatings) and part will be nonproductive (directing the work).

If you have more than three or four jobs going at one time, you need a field superintendent. The field superintendent is the foreman's supervisor. His or her primary responsibility is to be sure that each foreman has the manpower, materials and equipment needed to get the job done. The field superintendent should monitor job progress to be sure manhour productivity and materials used are in line with estimates. Field superintendents usually are not working supervisors; all their time is nonproductive. Figure the field superintendent's salary as overhead expense, because you can't charge his salary to a specific job.

Your project foremen and field superintendent can make or break a job. The better they are, the more work will be done. You want a field superintendent who assigns the right painters to the right foreman, and a foreman who puts the right painters on the right tasks. The most experienced tradesmen should work on tasks that require more skill. Other painters should be used where less skill is needed. The project foreman is also responsible for job safety and quality control.

Your estimates will be more competitive if you can assume high productivity. That's only possible when you have good supervision, from both foremen and superintendent, and motivated crews.

Allowances for Supervision

Supervision isn't considered productive labor. A foreman isn't painting when he's scheduling, organizing a job and instructing his workers. Here are my rule-of-thumb allowances for nonproductive labor on painting jobs.

Custom homes. Allow 2.5 hours of nonproductive supervision for a home up to 1,500 square feet, 3 hours on a home between 1,500 and 2,000 square feet, 4 hours on a custom home between 2,000 and 2,500 square feet, and 5 hours on a larger home.

Model homes in a tract. One hour of nonproductive supervision for each day your crew will be on the job.

Most tract homes. One hour per house.

Higher-quality tract homes. Two hours per house.

Slow application and light coverage (Repaint jobs)	Medium application and medium coverage (Commercial projects)	Fast application and heavy coverage (Residential tracts)
Repaint jobs	Commercial projects	Residential production
Light usage	Moderate usage	Heavy usage
Low absorption	Moderate absorption	High absorption
Light application	Medium application	Heavy application
Low waste	Moderate waste	High waste
Quality paint	Standard paint	Production paint
Semi-skilled painters	Skilled crew	Highly skilled crew

Figure 7
Material coverage rates

Apartments and condos. Allow 1 hour per unit if there are 10 units or less. For 11 to 30 units, allow 0.75 hours of nonproductive time per unit. If there are more than 30 units, allow 0.5 hour per unit.

Nonproductive labor on commercial, industrial, institutional and government projects varies considerably. More complex jobs will require proportionately more nonproductive labor. Use your knowledge based on past experience to estimate supervision either as a percentage of job cost or by the square foot of floor.

coverage is typical on “Slow” (repaint) jobs because previously painted surfaces usually absorb 10 to 15 percent less paint than an unpainted surface. All coverage rates are based on paint that’s been thinned according to the manufacturer’s recommendations.

Of course, coverage varies with the paint you’re using and the surface you’re painting. Paint manufacturers usually list the recommended coverage rate on the container label. I’ve listed estimated coverage rates in the tables throughout this book.

Column 2: Material Coverage

The second column in the cost tables shows the estimated material coverage in units (usually square feet or linear feet) per gallon. Figure 7 shows the conditions likely to apply for each of the three material coverage rates. Every condition listed in each of these categories won’t necessarily occur on every painting operation. For example, it’s possible to have high waste and use low quality paint on a repaint job. But it’s more likely that waste will be low and paint quality high on jobs like that.

The “Slow” (repaint) application rate assumes light coverage, “Medium” (commercial project) application rate assumes medium coverage and “Fast” (residential tract) application rate assumes heavy coverage. Light

Calculating Film Thickness

Many project specifications for commercial, industrial and government jobs identify the coating (film) thickness you have to apply to each surface. The thickness is given in mils, or thousandths of an inch. One mil is 0.001 inch.

The thickness of the dry paint film depends on the percentage of solids in the paint. If you apply a gallon of paint containing 100 percent solids over 1,600 square feet, the dry film will be 1 mil thick — that is, if 100 percent of the paint adheres to the wall. But if there’s 10 percent waste (because of paint that’s left in the can, on brushes, or spilled), only 90 percent of the material ends up on the surface.

Slow application	Medium application	Fast application
Repaint jobs	Commercial projects	Residential tracts
Low volume	Medium volume	High volume
20% discount	30% discount	40% discount

Figure 8
Material price discounts

Here's a formula for coverage rates that makes it easy to calculate mil thickness, including the waste factor. Coverage rate equals:

$$\frac{\% \text{ of solids} \times 1600}{\text{mil thickness}} \times (1.00 - \text{waste factor})$$

Here's an example. Assume you're applying paint with 40 percent solids (by volume), using a roller. The waste factor is 10 percent. You need a thickness of 5 mils.

Here's the calculation for the coverage rate:

$$\frac{.40 \times 1600}{5} \times (1.00 - .10) = 115.2 \text{ per gallon}$$

You may have to apply several coats to get a thickness of 5 mils. In any case, you'll have to use one gallon of paint for each 115.2 square feet of surface.

Waste Factors

Be sure to consider waste and spillage when you figure coverage rates. Professional painters waste very little paint. They rarely kick over a five-gallon paint bucket. But there's always some waste. My material coverage formulas include a typical waste allowance for each application method, whether it's brush, roller or spray. Of course, actual waste depends on the skill of your painters no matter what application method they use.

These are the waste factors I've built into the tables:

Brush	3 to 5%
Roll	5 to 10%
Airless spray	20 to 25%
Conventional spray.....	25 to 35%

Changes in Paint Formulation

In the late 1970s, the California State Air Resources Board established a "model rule" for lowering the solvent in oil-based paints. They mandated replacing solvent-based paint with water-based formulas. The objective was to lower the amount of solvents escaping into the air. This change in the formulation of oil-based paints is being adopted nationwide.

Changes in paint formulation will affect coverage rates and the cost for non-flat paints. Review actual coverage rates and paint prices and make adjustments where necessary before using the estimates in this book.

Column 3: Material Pricing

The third column in the cost tables shows the cost of materials. The "Slow," "Medium," and "Fast" prices in each table are based on the discounts usually offered by suppliers for volume purchases by contractor customers. The material discounts used in this book are defined in Figure 8.

The more paint a contractor buys over a given period, the greater the discount that contractor can expect. Most paint contractors get a discount of at least 20 percent off retail. Contractors buying in heavy volume usually get discounts that approach 40 percent off retail.

Material Pricing Tables

Figures 9, 10 and 11 show the material prices I've used for each of three application rates throughout this book. In the cost estimating tables each coating is identified by a material number. To find out more about the cost of any of these coatings, refer to the material number listed in Figure 9, 10 or 11.

Material prices at 20% discount

All pricing is based on production grade material purchased in 5 gallon quantities.

		Retail price guide	Contractor price at a 20% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Interior:						
	Sealer, off white (wet area walls & ceilings)					
#1 -	Water base	32.65	26.12	32.65	35.26	35.30
#2 -	Oil base	44.90	35.92	44.90	48.49	48.50
	Undercoat (doors, casings and other paint grade wood)					
#3 -	Water base	35.60	28.48	35.60	38.45	38.50
#4 -	Oil base	47.50	38.00	47.50	51.30	51.30
	Flat latex (walls, ceilings & paint grade baseboard)					
#5 -	Water base latex paint	32.05	25.64	32.05	34.61	34.60
	Acoustic spray-on texture					
#6 -	Primer	25.00	20.00	25.00	27.00	27.00
#7 -	Finish	30.25	24.20	30.25	32.67	32.70
#8 -	Dripowder mixed (pound)	1.05	0.84	1.05	1.13	1.13
	Enamel (wet area walls & ceilings and openings)					
#9 -	Water base enamel	44.95	35.96	44.95	48.55	48.60
#10 -	Oil base enamel	65.55	52.44	65.55	70.79	70.80
	System Estimate (cabinets, bookshelves, molding, interior windows)					
#11a -	Wiping stain, oil base	56.40	45.12	56.40	60.91	60.90
#11b -	Sanding sealer, lacquer	44.50	35.60	44.50	48.06	48.10
#11c -	Lacquer, semi gloss	46.45	37.16	46.45	50.17	50.20
#11 -	Stain, seal & 2 coat lacquer System					
	Average cost (11a + b + (2 x c))		38.76	48.45	52.33	52.30
#12 -	Shellac, clear	62.30	49.84	62.30	67.28	67.30
#13 -	Penetrating oil stain	55.75	44.60	55.75	60.21	60.20
#14 -	Penetrating stain wax (molding)	46.15	36.92	46.15	49.84	49.80
#15 -	Wax, per pound (floors)	16.90	13.52	16.90	18.25	18.30
#16 -	Glazing (mottling over enamel)	45.25	36.20	45.25	48.87	48.90
#17 -	Spray can, each (HVAC registers)	10.40	8.32	10.40	11.23	11.20
Exterior:						
	Solid body/color stain (beams, light valance, fascia, overhang, siding, plant-on trim, wood shelves)					
#18 -	Water base stain	42.95	34.36	42.95	46.39	46.40
#19 -	Oil base stain	52.25	41.80	52.25	56.43	56.40
	Semi-transparent stain (beams, siding, T & G ceiling)					
#20 -	Water base stain	43.35	34.68	43.35	46.82	46.80
#21 -	Oil base stain	49.90	39.92	49.90	53.89	53.90
#22 -	Polyurethane (exterior doors)	79.35	63.48	79.35	85.70	85.70
#23 -	Marine spar varnish, flat or gloss (exterior doors)					
	Interior or exterior	83.15	66.52	83.15	89.80	89.80

Figure 9

Material prices at 20% discount

Material prices at 20% discount (cont.)

	Retail price guide	Contractor price at a 20% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Exterior enamel (exterior doors & trim)					
#24 - Water base	52.75	42.20	52.75	56.97	57.00
#25 - Oil base	59.25	47.40	59.25	63.99	64.00
Porch & deck enamel - interior or exterior					
#26 - Water base enamel	48.15	38.52	48.15	52.00	52.00
#27 - Oil base enamel	59.95	47.96	59.95	64.75	64.80
#28 - Epoxy, 1 part, water base	65.60	52.48	65.60	70.85	70.90
#29 - Epoxy, 2 part SYSTEM	110.15	88.12	110.15	118.96	119.00
System Estimate (exterior windows)					
#30a - Wiping stain, oil base	53.70	42.96	53.70	58.00	58.00
#30b - Sanding sealer, varnish	59.00	47.20	59.00	63.72	63.70
#30c - Varnish, flat or gloss	81.25	65.00	81.25	87.75	87.80
#30 - Stain, seal & 1 coat varnish SYSTEM					
Average cost (30a + b + c))		51.72	64.65	69.82	69.80
Masonry paint (masonry, concrete, plaster)					
#31 - Water base, flat or gloss	41.25	33.00	41.25	44.55	44.60
#32 - Oil base paint	58.50	46.80	58.50	63.18	63.20
#33 - Block filler	32.50	26.00	32.50	35.10	35.10
#34 - Waterproofing, clear hydro seal	38.45	30.76	38.45	41.53	41.50
Metal primer, rust inhibitor					
#35 - Clean metal	58.35	46.68	58.35	63.02	63.00
#36 - Rusty metal	68.90	55.12	68.90	74.41	74.40
Metal finish, synthetic enamel, gloss, interior or exterior					
#37 - Off white	66.25	53.00	66.25	71.55	71.60
#38 - Colors (except orange/red)	69.70	55.76	69.70	75.28	75.30
Anti-graffiti stain eliminator					
#39 - Water base primer & sealer	42.52	34.02	42.53	45.93	45.90
#40 - Oil base primer & sealer	49.40	39.52	49.40	53.35	53.40
#41 - Polyurethane 2 part SYSTEM	146.70	117.36	146.70	158.44	158.40
Preparation:					
#42 - Caulking, per fluid ounce	0.45	0.36	0.45	0.49	0.49
Paint remover, per gallon					
#43 - Light duty	40.65	32.52	40.65	43.90	43.90
#44 - Heavy duty	42.85	34.28	42.85	46.28	46.30
#45 - Putty, per pound	6.90	5.52	6.90	7.45	7.50
#46 - Silica sand, per pound	0.60	0.48	0.60	0.65	0.65
#47 - Visqueen, 1.5 mil, 12' x 200' roll	46.50	37.20	46.50	50.22	50.20
#48 - Wood filler, per gallon	47.65	38.12	47.65	51.46	51.50

Figure 9 (continued)
Material prices at 20% discount

Material prices at 20% discount (cont.)

	Retail price guide	Contractor price at a 20% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Industrial:					
#49 - Acid wash (muriatic acid)	20.10	16.08	20.10	21.71	21.70
#50 - Aluminum base paint	96.70	77.36	96.70	104.44	104.40
Epoxy coating, 2 part SYSTEM					
#51 - Clear	141.65	113.32	141.65	152.98	153.00
#52 - White	134.90	107.92	134.90	145.69	145.70
Heat resistant enamel					
#53 - 800 to 1200 degree range	125.10	100.08	125.10	135.11	135.10
#54 - 300 to 800 degree range	118.50	94.80	118.50	127.98	128.00
#55 - Industrial bonding & penetrating oil paint	62.00	49.60	62.00	66.96	67.00
Industrial enamel, oil base, high gloss					
#56 - Light colors	60.00	48.00	60.00	64.80	64.80
#57 - Dark (OSHA) colors	77.85	62.28	77.85	84.08	84.10
#58 - Industrial waterproofing	47.45	37.96	47.45	51.25	51.30
#59 - Vinyl coating (tanks)	133.30	106.64	133.30	143.96	144.00
Wallcovering:					
Ready-mix:					
#60 - Light-weight vinyl (gal)	13.50	10.80	13.50	14.58	14.60
#61 - Heavy weight vinyl (gal)	15.05	12.04	15.05	16.25	16.30
#62 - Cellulose, clear (gal)	14.35	11.48	14.35	15.50	15.50
#63 - Vinyl to vinyl (gal)	23.05	18.44	23.05	24.89	24.90
#64 - Powdered cellulose, 2 - 4 ounces	7.05	5.64	7.05	7.61	7.60
#65 - Powdered vinyl, 2 - 4 ounces	8.40	6.72	8.40	9.07	9.10
#66 - Powdered wheat paste, 2-4 ounces	6.40	5.12	6.40	6.91	6.90

Note: Typically, powdered paste is in 2 to 4 ounce packages which will adhere 6 to 12 rolls of wallcovering.

Figure 9 (continued)
Material prices at 20% discount

National Painting Cost Estimator

Material prices at 30% discount

		Retail price guide	Contractor price at a 30% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Interior:						
	Sealer, off white (wet area walls & ceilings)					
#1 -	Water base	32.65	22.86	28.58	30.87	30.90
#2 -	Oil base	44.90	31.43	39.29	42.43	42.40
	Undercoat (doors, casings and other paint grade wood)					
#3 -	Water base	35.60	24.92	31.15	33.64	33.60
#4 -	Oil base	47.50	33.25	41.56	44.88	44.90
	Flat latex (walls, ceilings & paint grade baseboard)					
#5 -	Water base latex paint	32.05	22.44	28.05	30.29	30.30
	Acoustic spray-on texture					
#6 -	Primer	25.00	17.50	21.88	23.63	23.60
#7 -	Finish	30.25	21.18	26.48	28.60	28.60
#8 -	Dripowder mixed (pound)	1.05	0.74	0.93	1.00	1.00
	Enamel (wet area walls & ceilings and openings)					
#9 -	Water base enamel	44.95	31.47	39.34	42.49	42.50
#10 -	Oil base enamel	65.55	45.89	57.36	61.95	62.00
	System Estimate (cabinets, bookshelves, molding, interior windows)					
#11a -	Wiping stain, oil base	56.40	39.48	49.35	53.30	53.30
#11b -	Sanding sealer, lacquer	44.50	31.15	38.94	42.06	42.10
#11c -	Lacquer, semi gloss	46.45	32.52	40.65	43.90	43.90
#11 -	Stain, seal & 2 coat lacquer SYSTEM					
	Average cost (11a + b + (2 x c))		33.92	42.40	45.79	45.80
#12 -	Shellac, clear	62.30	43.61	54.51	58.87	58.90
#13 -	Penetrating oil stain	55.75	39.03	48.79	52.69	52.70
#14 -	Penetrating stain wax (molding)	46.15	32.31	40.39	43.62	43.60
#15 -	Wax, per pound (floors)	16.90	11.83	14.79	15.97	16.00
#16 -	Glazing (mottling over enamel)	45.25	31.68	39.60	42.77	42.80
#17 -	Spray can, each (HVAC registers)	10.40	7.28	9.10	9.83	9.80
Exterior:						
	Solid body/color stain (beams, light valance, fascia, overhang, siding, plant-on trim, wood shelves)					
#18 -	Water base stain	42.95	30.07	37.59	40.60	40.60
#19 -	Oil base stain	52.25	36.58	45.73	49.39	49.40
	Semi-transparent stain (beams, siding, T & G ceiling)					
#20 -	Water base stain	43.35	30.35	37.94	40.98	41.00
#21 -	Oil base stain	49.90	34.93	43.66	47.15	47.20
#22 -	Polyurethane (exterior doors)	79.35	55.55	69.44	75.00	75.00
#23 -	Marine spar varnish, flat or gloss (exterior doors)					
	Interior or exterior	83.15	58.21	72.76	78.58	78.60

Figure 10
Material prices at 30% discount

Material prices at 30% discount (cont.)

	Retail price guide	Contractor price at a 30% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Exterior enamel (exterior doors & trim)					
#24 - Water base	52.75	36.93	46.16	49.85	49.90
#25 - Oil base	59.25	41.48	51.85	56.00	56.00
Porch & deck enamel - interior or exterior					
#26 - Water base enamel	48.15	33.71	42.14	45.51	45.50
#27 - Oil base enamel	59.95	41.97	52.46	56.66	56.70
#28 - Epoxy, 1 part, water base	65.60	45.92	57.40	61.99	62.00
#29 - Epoxy, 2 part SYSTEM	110.15	77.11	96.39	104.10	104.10
SYSTEM ESTIMATE (exterior windows)					
#30a - Wiping stain, oil base	53.70	37.59	46.99	50.75	50.80
#30b - Sanding sealer, varnish	59.00	41.30	51.63	55.76	55.80
#30c - Varnish, flat or gloss	81.25	56.88	71.10	76.79	76.80
#30 - Stain, seal & 1 coat varnish SYSTEM					
Average cost (30a + b + c))		45.26	56.58	61.11	61.10
Masonry paint (masonry, concrete, plaster)					
#31 - Water base, flat or gloss	41.25	28.88	36.10	38.99	39.00
#32 - Oil base paint	58.50	40.95	51.19	55.29	55.30
#33 - Block filler	32.50	22.75	28.44	30.72	30.70
#34 - Waterproofing, clear hydro seal	38.45	26.92	33.65	36.34	36.30
Metal primer, rust inhibitor					
#35 - Clean metal	58.35	40.85	51.06	55.14	55.10
#36 - Rusty metal	68.90	48.23	60.29	65.11	65.10
Metal finish, synthetic enamel, gloss, interior or exterior					
#37 - Off white	66.25	46.38	57.98	62.62	62.60
#38 - Colors (except orange/red)	69.70	48.79	60.99	65.87	65.90
Anti-graffiti stain eliminator					
#39 - Water base primer & sealer	42.52	29.76	37.20	40.18	40.20
#40 - Oil base primer & sealer	49.40	34.58	43.23	46.69	46.70
#41 - Polyurethane 2 part SYSTEM	146.70	102.69	128.36	138.63	138.60
Preparation:					
#42 - Caulking, per fluid ounce	0.45	0.32	0.40	0.43	0.43
Paint remover, per gallon					
#43 - Light duty	40.65	28.46	35.58	38.43	38.40
#44 - Heavy duty	42.85	30.00	37.50	40.50	40.50
#45 - Putty, per pound	6.90	4.83	6.04	6.52	6.50
#46 - Silica sand, per pound	0.60	0.42	0.53	0.57	0.57
#47 - Visqueen, 1.5 mil, 12' x 200' roll	46.50	32.55	40.69	43.95	44.00
#48 - Wood filler, per gallon	47.65	33.36	41.70	45.04	45.00

Figure 10 (continued)
Material prices at 30% discount

Material prices at 30% discount (cont.)

	Retail price guide	Contractor price at a 30% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Industrial:					
#49 - Acid wash (muriatic acid)	20.10	14.07	17.59	19.00	19.00
#50 - Aluminum base paint	96.70	67.69	84.61	91.38	91.40
Epoxy coating, 2 part System					
#51 - Clear	141.65	99.16	123.95	133.87	133.90
#52 - White	134.90	94.43	118.04	127.48	127.50
Heat resistant enamel					
#53 - 800 to 1200 degree range	125.10	87.57	109.46	118.22	118.20
#54 - 300 to 800 degree range	118.50	82.95	103.69	111.99	112.00
#55 - Industrial bonding & penetrating oil paint	62.00	43.40	54.25	58.59	58.60
Industrial enamel, oil base, high gloss					
#56 - Light colors	60.00	42.00	52.50	56.70	56.70
#57 - Dark (OSHA) colors	77.85	54.50	68.13	73.58	73.60
#58 - Industrial waterproofing	47.45	33.22	41.53	44.85	44.90
#59 - Vinyl coating (tanks)	133.30	93.31	116.64	125.97	126.00
Wallcovering:					
Ready-mix:					
#60 - Light-weight vinyl (gal)	13.50	9.45	11.81	12.75	12.80
#61 - Heavy weight vinyl (gal)	15.05	10.54	13.18	14.23	14.20
#62 - Cellulose, clear (gal)	14.35	10.05	12.56	13.56	13.60
#63 - Vinyl to vinyl (gal)	23.05	16.14	20.18	21.79	21.80
#64 - Powdered cellulose, 2 - 4 ounces	7.05	4.94	6.18	6.67	6.70
#65 - Powdered vinyl, 2 - 4 ounces	8.40	5.88	7.35	7.94	7.90
#66 - Powdered wheat paste, 2-4 ounces	6.40	4.48	5.60	6.05	6.10
Note: Typically, powdered paste is in 2 to 4 ounce packages which will adhere 6 to 12 rolls of wallcovering.					

Figure 10 (continued)
Material prices at 30% discount

Material prices at 40% discount

		Retail price guide	Contractor price at a 40% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Interior:						
	Sealer, off white (wet area walls & ceilings)					
#1 -	Water base	32.65	19.59	24.49	26.45	26.50
#2 -	Oil base	44.90	26.94	33.68	36.37	36.40
	Undercoat (doors, casings and other paint grade wood)					
#3 -	Water base	35.60	21.36	26.70	28.84	28.80
#4 -	Oil base	47.50	28.50	35.63	38.48	38.50
	Flat latex (walls, ceilings & paint grade baseboard)					
#5 -	Water base latex paint	32.05	19.23	24.04	25.96	26.00
	Acoustic spray-on texture					
#6 -	Primer	25.00	15.00	18.75	20.25	20.30
#7 -	Finish	30.25	18.15	22.69	24.51	24.50
#8 -	Dripowder mixed (pound)	1.05	0.63	0.79	0.85	0.85
	Enamel (wet area walls & ceilings and openings)					
#9 -	Water base enamel	44.95	26.97	33.71	36.41	36.40
#10 -	Oil base enamel	65.55	39.33	49.16	53.09	53.10
	System Estimate (cabinets, bookshelves, molding, interior windows)					
#11a -	Wiping stain, oil base	56.40	33.84	42.30	45.68	45.70
#11b -	Sanding sealer, lacquer	44.50	26.70	33.38	36.05	36.10
#11c -	Lacquer, semi gloss	46.45	27.87	34.84	37.63	37.60
#11 -	Stain, seal & 2 coat lacquer SYSTEM					
	Average cost (11a + b + (2 x c))		29.07	36.34	39.25	39.30
#12 -	Shellac, clear	62.30	37.38	46.73	50.47	50.50
#13 -	Penetrating oil stain	55.75	33.45	41.81	45.15	45.20
#14 -	Penetrating stain wax (molding)	46.15	27.69	34.61	37.38	37.40
#15 -	Wax, per pound (floors)	16.90	10.14	12.68	13.69	13.70
#16 -	Glazing (mottling over enamel)	45.25	27.15	33.94	36.66	36.70
#17 -	Spray can, each (HVAC registers)	10.40	6.24	7.80	8.42	8.40
Exterior:						
	Solid body/color stain (beams, light valance, fascia, overhang, siding, plant-on trim, wood shelves)					
#18 -	Water base stain	42.95	25.77	32.21	34.79	34.80
#19 -	Oil base stain	52.25	31.35	39.19	42.33	42.30
	Semi-transparent stain (beams, siding, T & G ceiling)					
#20 -	Water base stain	43.35	26.01	32.51	35.11	35.10
#21 -	Oil base stain	49.90	29.94	37.43	40.42	40.40
#22 -	Polyurethane (exterior doors)	79.35	47.61	59.51	64.27	64.30
#23 -	Marine spar varnish, flat or gloss (exterior doors)					
	Interior or exterior	83.15	49.89	62.36	67.35	67.40

Figure 11
Material prices at 40% discount

Material prices at 40% discount (cont.)

		Retail price guide	Contractor price at a 40% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Exterior enamel (exterior doors & trim)						
#24 -	Water base	52.75	31.65	39.56	42.72	42.70
#25 -	Oil base	59.25	35.55	44.44	48.00	48.00
Porch & deck enamel - interior or exterior						
#26 -	Water base enamel	48.15	28.89	36.11	39.00	39.00
#27 -	Oil base enamel	59.95	35.97	44.96	48.56	48.60
#28 -	Epoxy, 1 part, water base	65.60	39.36	49.20	53.14	53.10
#29 -	Epoxy, 2 part SYSTEM	110.15	66.09	82.61	89.22	89.20
System Estimate (exterior windows)						
#30a -	Wiping stain, oil base	53.70	32.22	40.28	43.50	43.50
#30b -	Sanding sealer, varnish	59.00	35.40	44.25	47.79	47.80
#30c -	Varnish, flat or gloss	81.25	48.75	60.94	65.82	65.80
#30 -	Stain, seal & 1 coat varnish SYSTEM					
	Average cost (30a + b + c))		38.79	48.49	52.37	52.40
Masonry paint (masonry, concrete, plaster)						
#31 -	Water base, flat or gloss	41.25	24.75	30.94	33.42	33.40
#32 -	Oil base paint	58.50	35.10	43.88	47.39	47.40
#33 -	Block filler	32.50	19.50	24.38	26.33	26.30
#34 -	Waterproofing, clear hydro seal	38.45	23.07	28.84	31.15	31.20
Metal primer, rust inhibitor						
#35 -	Clean metal	58.35	35.01	43.76	47.26	47.30
#36 -	Rusty metal	68.90	41.34	51.68	55.81	55.80
Metal finish, synthetic enamel, gloss, interior or exterior						
#37 -	Off white	66.25	39.75	49.69	53.67	53.70
#38 -	Colors (except orange/red)	69.70	41.82	52.28	56.46	56.50
Anti-graffiti stain eliminator						
#39 -	Water base primer & sealer	42.52	25.51	31.89	34.44	34.40
#40 -	Oil base primer & sealer	49.40	29.64	37.05	40.01	40.00
#41 -	Polyurethane 2 part SYSTEM	146.70	88.02	110.03	118.83	118.80
Preparation:						
#42 -	Caulking, per fluid ounce	0.45	0.27	0.34	0.37	0.37
Paint remover, per gallon						
#43 -	Light duty	40.65	24.39	30.49	32.93	32.90
#44 -	Heavy duty	42.85	25.71	32.14	34.71	34.70
#45 -	Putty, per pound	6.90	4.14	5.18	5.59	5.60
#46 -	Silica sand, per pound	0.60	0.36	0.45	0.49	0.49
#47 -	Visqueen, 1.5 mil, 12' x 200' roll	46.50	27.90	34.88	37.67	37.70
#48 -	Wood filler, per gallon	47.65	28.59	35.74	38.60	38.60

Figure 11 (continued)
Material prices at 40% discount

Material prices at 40% discount (cont.)

	Retail price guide	Contractor price at a 40% discount	Add 15% sundries & 10% escalation	Price with sales tax at 8%	Estimating prices with tax
Industrial:					
#49 - Acid wash (muriatic acid)	20.10	12.06	15.08	16.29	16.30
#50 - Aluminum base paint	96.70	58.02	72.53	78.33	78.30
Epoxy coating, 2 part SYSTEM					
#51 - Clear	141.65	84.99	106.24	114.74	114.70
#52 - White	134.90	80.94	101.18	109.27	109.30
Heat resistant enamel					
#53 - 800 to 1200 degree range	125.10	75.06	93.83	101.34	101.30
#54 - 300 to 800 degree range	118.50	71.10	88.88	95.99	96.00
#55 - Industrial bonding & penetrating oil paint	62.00	37.20	46.50	50.22	50.20
Industrial enamel, oil base, high gloss					
#56 - Light colors	60.00	36.00	45.00	48.60	48.60
#57 - Dark (OSHA) colors	77.85	46.71	58.39	63.06	63.10
#58 - Industrial waterproofing	47.45	28.47	35.59	38.44	38.40
#59 - Vinyl coating (tanks)	133.30	79.98	99.98	107.98	108.00
Wallcoverings:					
Ready-mix:					
#60 - Light-weight vinyl (gal)	13.50	8.10	10.13	10.94	10.90
#61 - Heavy weight vinyl (gal)	15.05	9.03	11.29	12.19	12.20
#62 - Cellulose, clear (gal)	14.35	8.61	10.76	11.62	11.60
#63 - Vinyl to vinyl (gal)	23.05	13.83	17.29	18.67	18.70
#64 - Powdered cellulose, 2 - 4 ounces	7.05	4.23	5.29	5.71	5.70
#65 - Powdered vinyl, 2 - 4 ounces	8.40	5.04	6.30	6.80	6.80
#66 - Powdered wheat paste, 2-4 ounces	6.40	3.84	4.80	5.18	5.20
Note: Typically, powdered paste is in 2 to 4 ounce packages which will adhere 6 to 12 rolls of wallcovering.					

Figure 11 (continued)
Material prices at 40% discount

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Figure 9 shows prices at a 20 percent discount off retail. It applies to “Slow” work and assumes light coverage on a previously painted surface. These costs would be typical for a lower-volume company handling mostly repaint or custom work.

Figure 10 reflects a 30 percent discount. It applies to “Medium” work and assumes medium coverage, as in commercial work.

Figure 11 is the 40 percent discount table. It applies to “Fast” work and assumes heavier coverage typically required on unpainted surfaces in new construction. This discount is usually available only to large, high-volume painting companies that purchase materials in large quantities.

Here’s an explanation of the columns in Figures 9, 10 and 11:

Retail price guide: This is an average based on a survey of up to a dozen paint manufacturers or distributors, for standard grade, construction-quality paint, purchased in five gallon quantities.

Material pricing and discount percentages will vary from supplier to supplier and from area to area. Always keep your supplier’s current price list handy. It should show your current cost for all the coatings and supplies you use. Also post a list of all suppliers, their phone numbers, and the salesperson’s name beside your phone.

Prices change frequently. Paint quality, your supplier’s discount programs, their marketing strategy and competition from other paint manufacturers will influence the price you pay. Never guess about paint prices — especially about less commonly used coatings. Don’t assume that a product you haven’t used before costs about the same as similar products. It might not. A heavy-duty urethane finish, for example, will cost about twice as much as a heavy-duty vinyl coating. If you don’t know that, your profit for the job can disappear very quickly.

Prices at discount: The retail price, less the appropriate discount.

Allowance for sundries: It’s not practical to figure the cost of every sheet of sandpaper and every rag you’ll use on a job. And there’s no way to accurately

predict how many jobs you’ll get out of each brush or roller pole, roller handle, ladder, or drop cloth. But don’t let that keep you from including an allowance for these important costs in your estimates. If you leave them out, it’s the same as estimating the cost of those items as zero. That’s a 100 percent miss. Too many of those, and you’re out of the painting business. It’s better to estimate any amount than to omit some costs entirely.

Figure 12 is a sundries inventory checklist. Use it to keep track of the actual cost of expendable tools and equipment.

I’ve added 15 percent to the paint cost to cover expendable tools and supplies. This is enough for sundries on most jobs. There is one exception, however. On repaint jobs where there’s extensive prep work, the cost of sundries may be more than 15 percent of the paint cost. When preparation work is extensive, figure the actual cost of supplies. Then add to the estimate that portion of the sundries cost that exceeds 15 percent of the paint cost. You might have to double the normal sundries allowance. When it comes to prep work, make sure your estimate covers all your supplies.

Price with sales tax at 8 percent: This column increases the material cost, including sundries, by 8 percent to cover sales tax. If sales tax in your area is more or less than 8 percent, you can adjust the material cost, or use the price that’s closest to your actual cost.

In most cases contractors have to pay sales tax. If you don’t pay the tax yourself, you may have to collect it from the building owner or general contractor and remit it to the state taxing authority. In either case, include sales tax in your estimate.

Estimating prices with tax: The figures in the last column of Figures 9 through 11 are rounded to the nearest dime unless the total is under a dollar. Those prices are rounded to the nearest penny.

This system for pricing materials isn’t exact. But it’s quick, easy and flexible. Compare your current material costs with costs in Figures 9, 10 and 11. If your costs are more than a few percent higher or lower than my costs, make a note on the blank line below “Fast” in the estimating tables.

Sundry Inventory Checklist									
Suppliers: <u>D-Dumphy Paints</u> <u>F-Fisher Paints</u> <u>S-Superior Paints</u> <u>P-Pioneer Paints</u>									
Supplier	Product number	Product	Inventory quantity	Unit	Cost	7/21	7/27	8/2	8/10
D	# —	Bender paint pads	3	Each	\$ 5.00				
D	#792	Brush - 3" nylon <i>Peacock</i>	2	Each	\$ 26.50		1		
D	#783	Brush - 4" nylon <i>Scooter</i>	2	Each	\$ 39.20			1	
D	#115	Brush - 5" nylon <i>Pacer</i>	2	Each	\$ 66.60			1	
D	#784	Brush - 3" bristle	2	Each	\$ 24.60			1	
D	#2170	Caulking bags	2	Each	\$ 5.30				
D	Latex	Caulking-DAP Acrylic latex	12	Each	\$ 2.80		12		
D	#2172	Caulking gun (Newborn)	2	Each	\$ 10.00		1		
P	# —	Hydraulic fluid	2	Qt	\$ 11.35				
P	# —	Lemon oil	2	Pint	\$ 5.68		1		
F	# —	Masking paper 18" wide	3	Roll	\$ 29.00				
F	Anchor	Masking tape 1 1/2"	24	Roll	\$ 4.25		12		12
P	#2176	Lacquer - 5 gallons	2	5's	\$ 129.00			1	
P	#2173	Sanding sealer - 5 gallons	2	5's	\$ 123.00		1		
P	#9850	Resin sealer - 5 gallons	2	5's	\$ 110.00				
P	#131	PVA sealer (clear) - 5 gallons	2	5's	\$ 116.00		1		
F	#8500	Particle masks 100/box	1	Box	\$ 19.00			1	
P	# —	Putty (Crawfords)	3	Qt	\$ 12.90		2		
F	#R-10	Respirators	1	Each	\$ 53.00				1
F	#R-49	Respirator cartridges 20/box	2	Box	\$ 61.60				
F	#R-51	Respirator filters 20/box	2	Box	\$ 44.00			1	
P	# —	Rags - 10 pound sack	2	Sack	\$ 31.60				
F	#AR 691	Roller covers 9" x 3/4"	6	Each	\$ 5.85		2		
F	#AR 692	Roller covers 9" x 3/8"	6	Each	\$ 5.97	3			2
F	#AR 671	Roller covers 7" x 3/4"	3	Each	\$ 4.85			1	
F	#AR 672	Roller covers 7" x 3/8"	3	Each	\$ 5.30		1		

Figure 12
Sundry inventory checklist

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Supplier	Product number	Product	Inventory quantity	Unit	Cost	7/21	7/27	8/2	8/10
F	#AR 611	Roller covers mini	3	Each	\$ 4.08			1	
F	#95	Roller frames 9"	6	Each	\$ 7.51	1	2		
F	#75	Roller frames 7"	5	Each	\$ 7.26	3		3	
F	#TGR	Roller frames mini	2	Each	\$ 4.20				
D	#40	Roller poles 4' wood tip	3	Each	\$ 3.70		1		
D	#10	Roller poles 6' wood tip	10	Each	\$ 5.73			2	
P	# 1	Roller pole tips metal	2	Each	\$ 4.59			2	
P	# —	Sandpaper (120C production)	2	Slve	\$ 68.40				1
P	# —	Sandpaper (220A trimite)	2	Slve	\$ 53.10				
P	# —	Sandpaper (220A garnet)	1	Slve	\$ 48.40		1		
D	# —	Spackle (Synkloid)	3	Qt	\$ 7.46	1		1	
D	#42/61	Spray bombs (black ^b /white ^w)	12	Each	\$ 4.34	^b 12			^w 12
F	# —	Spray gun tips #3 or #4	10	Each	\$ 10.80			3	
F	#2762	Spray gun couplers	10	Each	\$ 2.93			5	
F	#S-71	Spray socks 48/box	1	Box	\$ 23.40				
D	#5271	Stip fill	1	Gal	\$ 12.60			1	
D	#5927	Strainer bags	2	Each	\$ 2.04	1			
D	#JT-21	Staples - 5/16"	2	Box	\$ 3.31				
P	50 Gal	Thinner, lacquer	1	Drum	\$ 589.00				
P	50 Gal	Thinner, paint	1	Drum	\$ 293.00				1
P	# —	Thinner, shellac (alcohol)	1	Gal	\$ 13.75				
D	# —	Visqueen 1.5 mil 12' x 200'	3	Roll	\$ 35.40				
D	#5775	Work pots (2 gal. plastic)	3	Each	\$ 3.95		1		2
	#				\$				
	#				\$				
	#				\$				
	#				\$				
		Order date:				7/21	7/27	8/2	8/10
		Ordered by: (initials)				jj	jj	jj	jj
		Purchase order no.				0352	0356	0361	0371

Figure 12 (continued)
Sundry inventory checklist

	Residential Wallcovering				Commercial Wallcovering				Flexible Wood Wallcovering			
Production Rate	Computer Program Crew Code	Labor Cost per Hour	Labor Burden per Hour	Labor Cost + Burden	Computer Program Crew Code	Labor Cost per Hour	Labor Burden per Hour	Labor Cost + Burden	Computer Program Crew Code	Labor Cost per Hour	Labor Burden per Hour	Labor Cost + Burden
Slow	1W	\$21.00	\$5.04	\$26.04	4W	\$20.00	\$4.80	\$24.80	7W	\$20.50	\$4.92	\$25.42
Medium	2W	27.25	7.88	35.13	5W	25.75	7.44	33.19	8W	26.50	7.66	34.16
Fast	3W	34.25	12.09	46.34	6W	32.25	11.38	43.63	9W	33.25	11.74	44.99

Figure 13
Hourly wage rates for wallcovering application

Price Escalation

Escalation is the change in prices between the time you bid a job and the time you pay for labor and materials. Painting contractors seldom include escalation clauses in their bids because they don't expect lengthy delays. That's why escalation isn't included as a separate item in the estimating forms, Figures 18 and 19.

Any minor price escalation will be covered by the 15 percent added to material prices for sundries. But don't rely on that small cushion to absorb major inflationary cost increases. Plan ahead if prices are rising. In that case, add 10% of your material costs as an escalation factor and include this figure as a separate line item in the estimate.

Many formal construction contracts include an escalator clause that allows the contractor to recover for cost increases during the time of construction — especially if there was an unreasonable delay through no fault of the subcontractor. This clause may give you the right to collect for increases in both labor and material costs.

If work is delayed after you've been awarded the contract, you may be able to recover for cost increases under the escalator clause. This is more likely on public projects than on private jobs. Also, if there's a significant delay due to weather, you may have a good argument for adjusting the contract amount.

You can protect yourself against escalation if you include an expiration date on your bids. If the contract award is delayed beyond your expiration date, you can review your costs and make necessary adjustments.

But be careful here. Increase the bid too much and you'll probably lose the contract. So raise your bid only if necessary, and then only by the amount of the actual cost increases. Don't try to make a killing on the job just because the bid prices have expired.

Column 4: Labor Cost

Column 4 in Figure 2 on page 7 shows the labor cost per unit. This figure is based on the productivity rate in column 1 and the wage rate in Figure 1. The wage rate for "Slow" (repaint) work is assumed to be \$21.50 per hour. The wage rate for "Medium" (commercial) work is \$27.75 per hour. The wage rate for "Fast" (residential tract) work is \$34.75 per hour. Wage rates for wallcovering are different (Figure 13).

Wage Rates Vary

Wages vary from city to city. Recently I saw a survey of hourly union rates for painters in U.S. cities. The lowest rate shown was \$17.91 an hour for painters in Raleigh, North Carolina. The highest rate was \$46.15 for painters in Nome, Alaska. You might ask, "Why don't all the painters in Raleigh move to Nome?"

I don't know the answer, except to suggest that painters aren't starving in Raleigh. Nor are they getting rich in Nome. Working conditions and the cost of living are very different in those two cities. However, on private jobs using non-union tradesmen, wage rates usually don't vary as much from city to city. The wage you pay depends on the demand for painting and how many painters are available for work.

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Wages also change over time. For example, wage rates increased between 1996 and 2006. The national average union wage (including fringes) for painters in large cities went from \$27.60 in 1996 to \$35.00 per hour in 2006. In 2011, the average union wage for commercial work increased to as high as \$49.00 per hour. Always base your estimates on the actual wages you'll pay your **most experienced** painters.

Wages for Higher Skilled Specialists

Wages also vary with a workers' skill, dependability and with job difficulty. Generally higher paid painters are more productive than lower paid painters. Here's a chart to determine how much more per hour to estimate for supervision and for painting and surface preparation specialists. These figures are in addition to the basic journeyman rate.

Foremen	\$1.00 to 4.00
Field superintendents	\$4.50 to 6.50
Swing stage brush painters, spray painters, or paperhangers	\$.50
Iron, steel and bridge painters (ground work)	\$1.00
Sandblasters, iron, steel, or bridge painters (swing stage)	\$2.00
Steeplejacks	\$2.50

Most government and defense painting contracts require compliance with the Davis Bacon Act, which specifies that contractors pay at least the prevailing wage for each trade in the area where the job is located.

Calculate Your Labor Rate

Use the wage rate in Figure 1 (\$21.50, \$27.75 or \$34.75 for "Slow," "Medium," or "Fast") that's appropriate for your company. Or, use a rate somewhere in between the rates listed. If you use your own wage rate, divide the hourly wage by the labor productivity (such as square feet per manhour in column 1). That's your labor cost per unit. Multiply by 100 if the units used are 100 linear feet or 100 square feet. ($\$10 \div 400 \times 100 = \2.50 .)

Column 5: Labor Burden

For each dollar of wages your company pays, at least another 28 cents has to be paid in payroll tax and for insurance. That's part of your labor burden. The rest is fringe benefits such as vacation pay, health benefits and pension plans.

Federal taxes are the same for all employers. State taxes vary from state to state. Fringe benefits vary the most. Generally, larger companies with more skilled painters offer considerably more fringe benefits than smaller companies.

In the estimating tables, the labor burden percentage varies with the application rate. For "Slow" (repaint) work, it's assumed to be 24.0 percent of \$21.50 or \$5.16 per hour. For "Medium" (commercial) work, the estimating tables use 28.90 percent of \$27.75 or \$8.02 per hour. For "Fast" (residential tract) work, the labor burden is 35.3 percent of \$34.75 or \$12.27 per hour.

Figure 14 shows how the labor burden percentages were compiled for each application rate.

FICA — Social Security tax: This is the portion paid by employers and is set by federal law. A similar amount is withheld from each employee's wage and deposited with a Federal Reserve bank by the employer.

FUTA — Federal Unemployment Insurance tax: Paid entirely by the employer and set by federal law. No portion is deducted from employee wages.

SUI — State Unemployment Insurance: Varies from state to state.

WCI — Workers' Compensation Insurance: Provides benefits for employees in case of injury on the job. Workers' comp is required by state law. Rates vary by state, job description and the loss experience of the employer.

Liab. Ins. — Liability Insurance: Covers injury or damage done to the public by employees. Comprehensive contractor's liability insurance includes current operations, completed operations, bodily injury, property damage, protective and contractual coverages with a \$1,000,000 policy limit.

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Floors, concrete, spray, interior or exterior									
Masonry (concrete) paint, water base (material #31)									
Spray 1st coat									
Slow	800	175	44.60	2.69	.64	25.49	5.48	5.49	39.79
Medium	900	163	39.00	3.08	.89	23.93	6.98	4.19	39.07
Fast	1000	150	33.40	3.48	1.22	22.27	8.36	2.47	37.80
Spray 2nd coat									
Slow	900	275	44.60	2.39	.57	16.22	3.64	3.65	26.47
Medium	1000	263	39.00	2.78	.80	14.83	4.60	2.76	25.77
Fast	1100	250	33.40	3.16	1.12	13.36	5.47	1.62	24.73
Spray 3rd or additional coats									
Slow	1000	325	44.60	2.15	.52	13.72	3.11	3.12	22.62
Medium	1100	313	39.00	2.52	.74	12.46	3.93	2.36	22.01
Fast	1200	300	33.40	2.90	1.00	11.13	4.67	1.38	21.08
Masonry (concrete) paint, oil base (material #32)									
Spray 1st coat									
Slow	800	200	63.20	2.69	.64	31.60	6.64	6.65	48.22
Medium	900	188	55.30	3.08	.89	29.41	8.35	5.01	46.74
Fast	1000	175	47.40	3.48	1.22	27.09	9.86	2.92	44.57
Spray 2nd coat									
Slow	900	300	63.20	2.39	.57	21.07	4.57	4.58	33.18
Medium	1000	288	55.30	2.78	.80	19.20	5.70	3.42	31.90
Fast	1100	275	47.40	3.16	1.12	17.24	6.67	1.97	30.16
Spray 3rd or additional coats									
Slow	1000	350	63.20	2.15	.52	18.06	3.94	3.95	28.62
Medium	1100	338	55.30	2.52	.74	16.36	4.90	2.94	27.46
Fast	1200	325	47.40	2.90	1.00	14.58	5.74	1.70	25.92

Also use these formulas for concrete steps, stair treads, porches and patios. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Floors, concrete, penetrating stain, interior or exterior									
Penetrating oil stain (material #13)									
Roll 1st coat									
Slow	225	450	60.20	9.56	2.28	13.38	4.79	4.80	34.81
Medium	250	425	52.70	11.10	3.21	12.40	6.68	4.01	37.40
Fast	275	400	45.20	12.64	4.48	11.30	8.80	2.60	39.82
Roll 2nd coat									
Slow	325	500	60.20	6.62	1.59	12.04	3.85	3.86	27.96
Medium	345	475	52.70	8.04	2.33	11.09	5.36	3.22	30.04
Fast	365	450	45.20	9.52	3.36	10.04	7.11	2.10	32.13
Roll 3rd and additional coats									
Slow	365	525	60.20	5.89	1.41	11.47	3.57	3.57	25.91
Medium	383	500	52.70	7.25	2.09	10.54	4.97	2.98	27.83
Fast	400	475	45.20	8.69	3.07	9.52	6.60	1.95	29.83

Also use these formulas for concrete steps, stair treads, porches and patios. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Floors, wood, interior or exterior, paint grade, brush application									
Undercoat, water base (material #3)									
Brush prime coat									
Slow	275	450	38.50	7.82	1.88	8.56	3.47	3.48	25.21
Medium	300	425	33.60	9.25	2.66	7.91	4.96	2.97	27.75
Fast	325	400	28.80	10.69	3.79	7.20	6.71	1.99	30.38
Undercoat, oil base (material #4)									
Brush prime coat									
Slow	275	500	51.30	7.82	1.88	10.26	3.79	3.80	27.55
Medium	300	475	44.90	9.25	2.66	9.45	5.34	3.21	29.91
Fast	325	450	38.50	10.69	3.79	8.56	7.14	2.11	32.29
Porch & deck enamel, water base (material #26)									
Brush 1st and additional finish coats									
Slow	300	475	52.00	7.17	1.71	10.95	3.77	3.78	27.38
Medium	325	450	45.50	8.54	2.48	10.11	5.28	3.17	29.58
Fast	350	425	39.00	9.93	3.52	9.18	7.01	2.07	31.71
Porch & deck enamel, oil base (material #27)									
Brush 1st and additional finish coats									
Slow	300	550	64.80	7.17	1.71	11.78	3.93	3.94	28.53
Medium	325	525	56.70	8.54	2.48	10.80	5.45	3.27	30.54
Fast	350	500	48.60	9.93	3.52	9.72	7.18	2.12	32.47
Epoxy, 1 part, water base (material #28)									
Brush each coat									
Slow	125	450	70.90	17.20	4.13	15.76	7.05	7.06	51.20
Medium	163	425	62.00	17.02	4.91	14.59	9.13	5.48	51.13
Fast	200	400	53.10	17.38	6.13	13.28	11.41	3.37	51.57
Epoxy, 2 part system (material #29)									
Brush each coat									
Slow	100	425	119.00	21.50	5.16	28.00	10.39	10.41	75.46
Medium	138	400	104.10	20.11	5.82	26.03	12.99	7.79	72.74
Fast	175	375	89.20	19.86	6.99	23.79	15.70	4.65	70.99

"Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Floors, wood, interior or exterior, paint grade, roll application									
Undercoat, water base (material #3)									
Roll prime coat									
Slow	400	425	38.50	5.38	1.29	9.06	2.99	3.00	21.72
Medium	438	400	33.60	6.34	1.82	8.40	4.14	2.49	23.19
Fast	475	375	28.80	7.32	2.60	7.68	5.45	1.61	24.66
Undercoat, oil base (material #4)									
Roll prime coat									
Slow	400	475	51.30	5.38	1.29	10.80	3.32	3.33	24.12
Medium	438	450	44.90	6.34	1.82	9.98	4.54	2.72	25.40
Fast	475	425	38.50	7.32	2.60	9.06	5.88	1.74	26.60
Porch & deck enamel, water base (material #26)									
Roll 1st or additional finish coats									
Slow	425	475	52.00	5.06	1.21	10.95	3.27	3.28	23.77
Medium	463	450	45.50	5.99	1.74	10.11	4.46	2.67	24.97
Fast	500	425	39.00	6.95	2.45	9.18	5.76	1.70	26.04
Porch & deck enamel, oil base (material #27)									
Roll 1st or additional finish coats									
Slow	425	525	64.80	5.06	1.21	12.34	3.54	3.54	25.69
Medium	463	500	56.70	5.99	1.74	11.34	4.77	2.86	26.70
Fast	500	475	48.60	6.95	2.45	10.23	6.09	1.80	27.52
Epoxy, 1 part, water base (material #28)									
Brush each coat									
Slow	200	425	70.90	10.75	2.58	16.68	5.70	5.71	41.42
Medium	250	400	62.00	11.10	3.21	15.50	7.45	4.47	41.73
Fast	300	375	53.10	11.58	4.08	14.16	9.25	2.74	41.81
Epoxy, 2 part system (material #29)									
Brush each coat									
Slow	175	400	119.00	12.29	2.93	29.75	8.55	8.57	62.09
Medium	225	375	104.10	12.33	3.55	27.76	10.91	6.55	61.10
Fast	275	350	89.20	12.64	4.48	25.49	13.20	3.91	59.72

"Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Floors, wood, interior or exterior, stain grade									
Wiping stain, varnish, oil base (material #30a)									
Stain, brush 1st coat, wipe & fill									
Slow	225	500	58.00	9.56	2.28	11.60	4.46	4.47	32.37
Medium	250	475	50.80	11.10	3.21	10.69	6.25	3.75	35.00
Fast	275	450	43.50	12.64	4.48	9.67	8.30	2.45	37.54
Stain, brush 2nd coat, wipe & fill									
Slow	400	525	58.00	5.38	1.29	11.05	3.37	3.37	24.46
Medium	425	500	50.80	6.53	1.88	10.16	4.65	2.79	26.01
Fast	450	475	43.50	7.72	2.72	9.16	6.08	1.80	27.48
Stain, brush 3rd or additional coats, wipe & fill									
Slow	425	550	58.00	5.06	1.21	10.55	3.20	3.20	23.22
Medium	450	525	50.80	6.17	1.77	9.68	4.41	2.64	24.67
Fast	475	500	43.50	7.32	2.60	8.70	5.77	1.71	26.10
Sanding sealer, varnish (material #30b)									
Maple or pine, brush 1 coat									
Slow	375	475	63.70	5.73	1.39	13.41	3.90	3.91	28.34
Medium	400	450	55.80	6.94	2.00	12.40	5.34	3.20	29.88
Fast	425	425	47.80	8.18	2.87	11.25	6.92	2.05	31.27
Maple or pine, brush 2nd or additional coats									
Slow	425	550	63.70	5.06	1.21	11.58	3.39	3.40	24.64
Medium	450	525	55.80	6.17	1.77	10.63	4.65	2.79	26.01
Fast	475	500	47.80	7.32	2.60	9.56	6.03	1.78	27.29
Oak, brush 1 coat									
Slow	400	525	63.70	5.38	1.29	12.13	3.57	3.58	25.95
Medium	425	500	55.80	6.53	1.88	11.16	4.90	2.94	27.41
Fast	450	475	47.80	7.72	2.72	10.06	6.36	1.88	28.74
Oak, brush 2nd or additional coats									
Slow	500	625	63.70	4.30	1.03	10.19	2.95	2.96	21.43
Medium	525	600	55.80	5.29	1.51	9.30	4.03	2.42	22.55
Fast	550	575	47.80	6.32	2.24	8.31	5.23	1.55	23.65
Shellac, clear (material #12)									
Brush 1st coat									
Slow	275	475	67.30	7.82	1.88	14.17	4.54	4.55	32.96
Medium	300	450	58.90	9.25	2.66	13.09	6.25	3.75	35.00
Fast	325	425	50.50	10.69	3.79	11.88	8.17	2.42	36.95
Brush 2nd or additional coats									
Slow	400	500	67.30	5.38	1.29	13.46	3.82	3.83	27.78
Medium	425	475	58.90	6.53	1.88	12.40	5.21	3.12	29.14
Fast	450	450	50.50	7.72	2.72	11.22	6.72	1.99	30.37

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Varnish, gloss or flat (material #30c)									
Brush 1st coat									
Slow	275	475	87.80	7.82	1.88	18.48	5.35	5.36	38.89
Medium	300	450	76.80	9.25	2.66	17.07	7.25	4.35	40.58
Fast	325	425	65.80	10.69	3.79	15.48	9.28	2.75	41.99
Brush 2nd or additional coats									
Slow	350	600	87.80	6.14	1.48	14.63	4.23	4.24	30.72
Medium	375	575	76.80	7.40	2.15	13.36	5.73	3.44	32.08
Fast	400	550	65.80	8.69	3.07	11.96	7.35	2.17	33.24
Penetrating stain wax & wipe (material #14)									
Stain, brush 1st coat & wipe									
Slow	200	550	49.80	10.75	2.58	9.05	4.25	4.26	30.89
Medium	250	525	43.60	11.10	3.21	8.30	5.65	3.39	31.65
Fast	300	500	37.40	11.58	4.08	7.48	7.18	2.12	32.44
Stain, brush 2nd or additional coats & wipe									
Slow	250	600	49.80	8.60	2.06	8.30	3.60	3.61	26.17
Medium	300	575	43.60	9.25	2.66	7.58	4.88	2.93	27.30
Fast	350	550	37.40	9.93	3.52	6.80	6.27	1.86	28.38
Wax & polish (material #15)									
Hand apply 1 coat									
Slow	175	1000	18.30	12.29	2.93	1.83	3.24	3.25	23.54
Medium	200	950	16.00	13.88	4.01	1.68	4.89	2.94	27.40
Fast	225	900	13.70	15.44	5.44	1.52	6.95	2.06	31.41
Buffing with machine									
Slow	400	--	--	5.38	1.29	--	1.27	1.27	9.21
Medium	450	--	--	6.17	1.77	--	1.99	1.19	11.12
Fast	500	--	--	6.95	2.45	--	2.91	.86	13.17

"Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	Manhours per door	Gallons per Door	Material cost per gallon	Labor cost per door	Labor burden door	Material cost per door	Overhead per door	Profit per door	Total price per door
Garage door backs, seal coat, spray one coat									
Sanding sealer, lacquer (material #11b)									
1 car garage, 8' x 7'									
Slow	0.30	0.40	48.10	6.45	1.55	19.24	5.18	5.19	37.61
Medium	0.25	0.50	42.10	6.94	2.00	21.05	7.50	4.50	41.99
Fast	0.20	0.60	36.10	6.95	2.45	21.66	9.63	2.85	43.54
2 car garage, 16' x 7'									
Slow	0.40	0.80	48.10	8.60	2.06	38.48	9.34	9.36	67.84
Medium	0.35	0.90	42.10	9.71	2.81	37.89	12.60	7.56	70.57
Fast	0.30	1.00	36.10	10.43	3.68	36.10	15.57	4.60	70.38
3 car garage, 16' x 7' + 8' x 7'									
Slow	0.60	1.00	48.10	12.90	3.10	48.10	12.18	12.20	88.48
Medium	0.55	1.10	42.10	15.26	4.41	46.31	16.50	9.90	92.38
Fast	0.50	1.20	36.10	17.38	6.13	43.32	20.72	6.13	93.68

Use the figures for Siding when estimating the cost of painting garage door fronts. These figures assume a one-car garage door measures 7' x 8' and a two-car garage door measures 7' x 16'. A three-car garage has one single and one double door. Government funded projects (FHA, VA, HUD) usually require sealing the garage door back on new construction projects. The doors are usually sprayed along with the cabinet sealer coat (as used in this table) or stained along with the exterior trim. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
Gutters and downspouts (galvanized), brush application									
Gutters									
Metal prime, rust inhibitor, clean metal (material #35)									
Brush prime coat									
Slow	80	400	63.00	26.88	6.45	15.75	9.33	9.35	67.76
Medium	90	375	55.10	30.83	8.91	14.69	13.61	8.16	76.20
Fast	100	350	47.30	34.75	12.27	13.51	18.76	5.55	84.84
Metal prime, rust inhibitor, rusty metal (material #36)									
Brush prime coat									
Slow	80	400	74.40	26.88	6.45	18.60	9.87	9.89	71.69
Medium	90	375	65.10	30.83	8.91	17.36	14.28	8.57	79.95
Fast	100	350	55.80	34.75	12.27	15.94	19.52	5.77	88.25
Metal finish - synthetic enamel (off white), gloss (material #37)									
Brush 1st finish coat									
Slow	100	425	71.60	21.50	5.16	16.85	8.27	8.28	60.06
Medium	110	400	62.60	25.23	7.28	15.65	12.04	7.23	67.43
Fast	120	375	53.70	28.96	10.21	14.32	16.59	4.91	74.99
Brush 2nd or additional finish coats									
Slow	120	450	71.60	17.92	4.29	15.91	7.24	7.26	52.62
Medium	130	425	62.60	21.35	6.16	14.73	10.56	6.34	59.14
Fast	140	400	53.70	24.82	8.75	13.43	14.57	4.31	65.88
Metal finish - synthetic enamel (colors except orange/red), gloss (material #38)									
Brush 1st finish coat									
Slow	100	425	75.30	21.50	5.16	17.72	8.43	8.45	61.26
Medium	110	400	65.90	25.23	7.28	16.48	12.25	7.35	68.59
Fast	120	375	56.50	28.96	10.21	15.07	16.82	4.97	76.03
Brush 2nd or additional finish coats									
Slow	120	450	75.30	17.92	4.29	16.73	7.40	7.42	53.76
Medium	130	425	65.90	21.35	6.16	15.51	10.76	6.45	60.23
Fast	140	400	56.50	24.82	8.75	14.13	14.79	4.38	66.87
Downspouts									
Metal prime, rust inhibitor, clean metal (material #35)									
Brush prime coat									
Slow	30	250	63.00	71.67	17.19	25.20	21.67	21.72	157.45
Medium	35	225	55.10	79.29	22.90	24.49	31.67	19.00	177.35
Fast	40	200	47.30	86.88	30.67	23.65	43.77	12.95	197.92
Metal prime, rust inhibitor, rusty metal (material #36)									
Brush prime coat									
Slow	30	250	74.40	71.67	17.19	29.76	22.54	22.59	163.75
Medium	35	225	65.10	79.29	22.90	28.93	32.78	19.67	183.57
Fast	40	200	55.80	86.88	30.67	27.90	45.09	13.34	203.88

General Painting Costs

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
Metal finish - synthetic enamel (off white), gloss (material #37)									
Brush 1st finish coat									
Slow	50	275	71.60	43.00	10.32	26.04	15.08	15.11	109.55
Medium	60	250	62.60	46.25	13.38	25.04	21.17	12.70	118.54
Fast	70	225	53.70	49.64	17.55	23.87	28.22	8.35	127.63
Brush 2nd or additional finish coats									
Slow	70	300	71.60	30.71	7.39	23.87	11.77	11.80	85.54
Medium	80	275	62.60	34.69	10.02	22.76	16.87	10.12	94.46
Fast	90	250	53.70	38.61	13.63	21.48	22.85	6.76	103.33
Metal finish - synthetic enamel (colors except orange/red), gloss (material #38)									
Brush 1st finish coat									
Slow	50	275	75.30	43.00	10.32	27.38	15.33	15.36	111.39
Medium	60	250	65.90	46.25	13.38	26.36	21.50	12.90	120.39
Fast	70	225	56.50	49.64	17.55	25.11	28.60	8.46	129.36
Brush 2nd or additional finish coats									
Slow	70	300	75.30	30.71	7.39	25.10	12.00	12.03	87.23
Medium	80	275	65.90	34.69	10.02	23.96	17.17	10.30	96.14
Fast	90	250	56.50	38.61	13.63	22.60	23.20	6.86	104.90

NOTE: Oil base material is recommended for any metal surface. Although water base material is often used, it may cause oxidation, corrosion and rust. These figures assume that all exposed surfaces of 5" gutters and 4" downspouts are painted. For ornamental gutters and downspouts, multiply the linear feet by 1.5 before using these figures. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

High Time Difficulty Factors

Painting takes longer and may require more material when heights above the floor exceed 8 feet. The additional time and material for working at these heights and using a roller pole or a wand on a spray gun, climbing up and down a ladder or scaffolding is applied by using one of the factors listed below. The wall area above 8 feet is typically referred to as the "Clip." To apply the high time difficulty factor, measure the surface above 8 feet which is to be painted and multiply that figure by the appropriate factor. This measurement can be listed on a separate line of your take-off and the appropriate price can be applied for a total.

For labor calculations only:

- Add 30% to the area for heights between 8 and 13 feet (multiply by 1.3)
- Add 60% to the area for heights from 13 to 17 feet (multiply by 1.6)
- Add 90% to the area for heights from 17 to 19 feet (multiply by 1.9)
- Add 120% to the area for heights from 19 to 21 feet (multiply by 2.2)

EXAMPLE: A 17 x 14 living room has a vaulted ceiling 13 feet high. Your take-off sheet might look like this:

Walls to 8 feet: $136 + 112 + 136 + 112 = 496$ SF

Clip: $[(5 \times 14) / 2] \times 2 + (5 \times 17) = 70 + 85 = 155$ SF

area of two triangles + rectangular area

$155 \text{ SF} \times 1.3$ (high time difficulty factor) = 202 SF

Then multiply each SF total by the appropriate price per square foot.

National Painting Cost Estimator

Mail box structures, wood, apartment type

Measure the length of each board to be painted and use the manhours and material given for Trellis or Plant-on trim or Siding.

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, anti-graffiti stain eliminator on smooth or rough surface									
Water base primer and sealer (material #39)									
Roll & brush each coat									
Slow	350	400	45.90	6.14	1.48	11.48	3.63	3.64	26.37
Medium	375	375	40.20	7.40	2.15	10.72	5.07	3.04	28.38
Fast	400	350	34.40	8.69	3.07	9.83	6.69	1.98	30.26
Oil base primer and sealer (material #40)									
Roll & brush each coat									
Slow	350	375	53.40	6.14	1.48	14.24	4.15	4.16	30.17
Medium	375	350	46.70	7.40	2.15	13.34	5.72	3.43	32.04
Fast	400	325	40.00	8.69	3.07	12.31	7.46	2.21	33.74
Polyurethane 2 part system (material #41)									
Roll & brush each coat									
Slow	300	375	158.40	7.17	1.71	42.24	9.71	9.73	70.56
Medium	325	350	138.60	8.54	2.48	39.60	12.65	7.59	70.86
Fast	350	325	118.80	9.93	3.52	36.55	15.50	4.58	70.08

Use these figures for new brick, used brick, or Concrete Masonry Units (CMU) where the block surfaces are either smooth or rough, porous or unfilled, with joints struck to average depth. The more porous the surface, the rougher the texture, the more time and material will be required. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, block filler									
Brush 1 coat (material #33)									
Slow	95	75	35.10	22.63	5.44	46.80	14.22	14.25	103.34
Medium	125	65	30.70	22.20	6.42	47.23	18.96	11.38	106.19
Fast	155	55	26.30	22.42	7.91	47.82	24.23	7.17	109.55
Roll 1 coat (material #33)									
Slow	190	70	35.10	11.32	2.70	50.14	12.19	12.22	88.57
Medium	215	60	30.70	12.91	3.72	51.17	16.95	10.17	94.92
Fast	240	50	26.30	14.48	5.13	52.60	22.38	6.62	101.21
Spray 1 coat (material #33)									
Slow	425	65	35.10	5.06	1.21	54.00	11.45	11.48	83.20
Medium	525	55	30.70	5.29	1.51	55.82	15.66	9.40	87.68
Fast	625	45	26.30	5.56	1.96	58.44	20.45	6.05	92.46

Use these figures for using block filler on rough or porous masonry with joints struck to average depth. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, brick, new, smooth-surface, brush									
Masonry paint, water base, flat or gloss (material #31)									
Brush 1st coat									
Slow	200	300	44.60	10.75	2.58	14.87	5.36	5.37	38.93
Medium	225	275	39.00	12.33	3.55	14.18	7.52	4.51	42.09
Fast	250	250	33.40	13.90	4.91	13.36	9.97	2.95	45.09
Brush 2nd or additional coats									
Slow	250	325	44.60	8.60	2.06	13.72	4.63	4.64	33.65
Medium	275	300	39.00	10.09	2.93	13.00	6.50	3.90	36.42
Fast	300	275	33.40	11.58	4.08	12.15	8.62	2.55	38.98
Masonry paint, oil base (material #32)									
Brush 1st coat									
Slow	200	350	63.20	10.75	2.58	18.06	5.96	5.98	43.33
Medium	225	325	55.30	12.33	3.55	17.02	8.23	4.94	46.07
Fast	250	300	47.40	13.90	4.91	15.80	10.73	3.17	48.51
Brush 2nd or additional coats									
Slow	250	400	63.20	8.60	2.06	15.80	5.03	5.04	36.53
Medium	275	363	55.30	10.09	2.93	15.23	7.06	4.24	39.55
Fast	300	325	47.40	11.58	4.08	14.58	9.38	2.77	42.39

Use these figures for new smooth-surface brick with joints struck to average depth. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, brick, new, smooth-surface, roll									
Masonry paint, water base, flat or gloss (material #31)									
Roll 1st coat									
Slow	325	250	44.60	6.62	1.59	17.84	4.95	4.96	35.96
Medium	350	213	39.00	7.93	2.30	18.31	7.13	4.28	39.95
Fast	375	175	33.40	9.27	3.28	19.09	9.81	2.90	44.35
Roll 2nd or additional coats									
Slow	375	275	44.60	5.73	1.39	16.22	4.43	4.44	32.21
Medium	400	250	39.00	6.94	2.00	15.60	6.14	3.68	34.36
Fast	425	225	33.40	8.18	2.87	14.84	8.03	2.38	36.30
Masonry paint, oil base (material #32)									
Roll 1st coat									
Slow	325	325	63.20	6.62	1.59	19.45	5.26	5.27	38.19
Medium	350	288	55.30	7.93	2.30	19.20	7.36	4.41	41.20
Fast	375	250	47.40	9.27	3.28	18.96	9.77	2.89	44.17
Roll 2nd or additional coats									
Slow	375	350	63.20	5.73	1.39	18.06	4.78	4.79	34.75
Medium	400	313	55.30	6.94	2.00	17.67	6.66	3.99	37.26
Fast	425	275	47.40	8.18	2.87	17.24	8.78	2.60	39.67
Waterproofing, clear hydro sealer, oil base (material #34)									
Roll 1st coat									
Slow	200	175	41.50	10.75	2.58	23.71	7.04	7.05	51.13
Medium	225	150	36.30	12.33	3.55	24.20	10.02	6.01	56.11
Fast	250	125	31.20	13.90	4.91	24.96	13.57	4.01	61.35
Roll 2nd or additional coats									
Slow	225	200	41.50	9.56	2.28	20.75	6.19	6.21	44.99
Medium	250	190	36.30	11.10	3.21	19.11	8.36	5.01	46.79
Fast	275	180	31.20	12.64	4.48	17.33	10.67	3.16	48.28

Use these figures for new smooth-surface brick with joints struck to average depth. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, brick, new, smooth-surface, spray									
Masonry paint, water base, flat or gloss (material #31)									
Spray 1st coat									
Slow	650	250	44.60	3.31	.80	17.84	4.17	4.18	30.30
Medium	750	225	39.00	3.70	1.06	17.33	5.53	3.32	30.94
Fast	850	200	33.40	4.09	1.46	16.70	6.89	2.04	31.18
Spray 2nd or additional coats									
Slow	750	275	44.60	2.87	.68	16.22	3.76	3.77	27.30
Medium	825	238	39.00	3.36	.97	16.39	5.18	3.11	29.01
Fast	900	250	33.40	3.86	1.36	13.36	5.76	1.70	26.04
Masonry paint, oil base (material #32)									
Spray 1st coat									
Slow	650	275	63.20	3.31	.80	22.98	5.15	5.16	37.40
Medium	750	250	55.30	3.70	1.06	22.12	6.72	4.03	37.63
Fast	850	225	47.40	4.09	1.46	21.07	8.25	2.44	37.31
Spray 2nd or additional coats									
Slow	750	300	63.20	2.87	.68	21.07	4.68	4.69	33.99
Medium	825	288	55.30	3.36	.97	19.20	5.88	3.53	32.94
Fast	900	275	47.40	3.86	1.36	17.24	6.96	2.06	31.48
Waterproofing, clear hydro sealer, oil base (material #34)									
Spray 1st coat									
Slow	700	120	41.50	3.07	.74	34.58	7.29	7.31	52.99
Medium	800	100	36.30	3.47	1.00	36.30	10.19	6.12	57.08
Fast	900	80	31.20	3.86	1.36	39.00	13.71	4.06	61.99
Spray 2nd or additional coats									
Slow	800	150	41.50	2.69	.64	27.67	5.89	5.90	42.79
Medium	900	138	36.30	3.08	.89	26.30	7.57	4.54	42.38
Fast	1000	125	31.20	3.48	1.22	24.96	9.20	2.72	41.58

Use these figures for new smooth-surface brick with joints struck to average depth. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, brick, used, rough surface, brush									
Masonry paint, water base, flat or gloss (material #31)									
Brush 1st coat									
Slow	150	300	44.60	14.33	3.45	14.87	6.20	6.21	45.06
Medium	175	275	39.00	15.86	4.56	14.18	8.66	5.19	48.45
Fast	200	250	33.40	17.38	6.13	13.36	11.43	3.38	51.68
Brush 2nd or additional coats									
Slow	200	375	44.60	10.75	2.58	11.89	4.79	4.80	34.81
Medium	225	350	39.00	12.33	3.55	11.14	6.76	4.05	37.83
Fast	250	325	33.40	13.90	4.91	10.28	9.02	2.67	40.78
Masonry paint, oil base (material #32)									
Brush 1st coat									
Slow	150	325	63.20	14.33	3.45	19.45	7.07	7.09	51.39
Medium	175	300	55.30	15.86	4.56	18.43	9.72	5.83	54.40
Fast	200	275	47.40	17.38	6.13	17.24	12.64	3.74	57.13
Brush 2nd or additional coats									
Slow	200	400	63.20	10.75	2.58	15.80	5.53	5.55	40.21
Medium	225	375	55.30	12.33	3.55	14.75	7.66	4.60	42.89
Fast	250	350	47.40	13.90	4.91	13.54	10.03	2.97	45.35

Use these figures for dry pressed used brick, clay brick tile, or adobe block with joints struck to average depth.

"Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, brick, used, rough surface, roll									
Masonry paint, water base, flat or gloss (material #31)									
Roll 1st coat									
Slow	300	250	44.60	7.17	1.71	17.84	5.08	5.09	36.89
Medium	325	225	39.00	8.54	2.48	17.33	7.09	4.25	39.69
Fast	350	200	33.40	9.93	3.52	16.70	9.34	2.76	42.25
Roll 2nd or additional coats									
Slow	350	325	44.60	6.14	1.48	13.72	4.05	4.06	29.45
Medium	375	300	39.00	7.40	2.15	13.00	5.64	3.38	31.57
Fast	400	275	33.40	8.69	3.07	12.15	7.41	2.19	33.51
Masonry paint, oil base (material #32)									
Roll 1st coat									
Slow	300	275	63.20	7.17	1.71	22.98	6.06	6.07	43.99
Medium	325	250	55.30	8.54	2.48	22.12	8.28	4.97	46.39
Fast	350	225	47.40	9.93	3.52	21.07	10.70	3.16	48.38
Roll 2nd or additional coats									
Slow	350	350	63.20	6.14	1.48	18.06	4.88	4.89	35.45
Medium	375	325	55.30	7.40	2.15	17.02	6.64	3.98	37.19
Fast	400	300	47.40	8.69	3.07	15.80	8.54	2.53	38.63
Waterproofing, clear hydro sealer, oil base (material #34)									
Roll 1st coat									
Slow	150	125	41.50	14.33	3.45	33.20	9.68	9.70	70.36
Medium	175	113	36.30	15.86	4.56	32.12	13.14	7.88	73.56
Fast	200	100	31.20	17.38	6.13	31.20	16.96	5.02	76.69
Roll 2nd or additional coats									
Slow	175	150	41.50	12.29	2.93	27.67	8.15	8.17	59.21
Medium	200	138	36.30	13.88	4.01	26.30	11.05	6.63	61.87
Fast	225	125	31.20	15.44	5.44	24.96	14.21	4.20	64.25

Use these figures for dry pressed used brick, clay brick tile, or adobe block with joints struck to average depth. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, brick, used, rough surface, spray									
Masonry paint, water base, flat or gloss (material #31)									
Spray 1st coat									
Slow	600	200	44.60	3.58	.87	22.30	5.08	5.09	36.92
Medium	700	175	39.00	3.96	1.16	22.29	6.85	4.11	38.37
Fast	800	150	33.40	4.34	1.54	22.27	8.72	2.58	39.45
Spray 2nd or additional coats									
Slow	700	225	44.60	3.07	.74	19.82	4.49	4.50	32.62
Medium	800	213	39.00	3.47	1.00	18.31	5.70	3.42	31.90
Fast	900	200	33.40	3.86	1.36	16.70	6.80	2.01	30.73
Masonry paint, oil base (material #32)									
Spray 1st coat									
Slow	600	225	63.20	3.58	.87	28.09	6.18	6.19	44.91
Medium	700	200	55.30	3.96	1.16	27.65	8.19	4.91	45.87
Fast	800	175	47.40	4.34	1.54	27.09	10.22	3.02	46.21
Spray 2nd or additional coats									
Slow	700	250	63.20	3.07	.74	25.28	5.53	5.54	40.16
Medium	800	238	55.30	3.47	1.00	23.24	6.93	4.16	38.80
Fast	900	225	47.40	3.86	1.36	21.07	8.15	2.41	36.85
Waterproofing, clear hydro sealer, oil base (material #34)									
Spray 1st coat									
Slow	600	80	41.50	3.58	.87	51.88	10.70	10.72	77.75
Medium	700	75	36.30	3.96	1.16	48.40	13.38	8.03	74.93
Fast	800	70	31.20	4.34	1.54	44.57	15.64	4.63	70.72
Spray 2nd coat									
Slow	800	100	41.50	2.69	.64	41.50	8.52	8.54	61.89
Medium	900	90	36.30	3.08	.89	40.33	11.08	6.65	62.03
Fast	1000	80	31.20	3.48	1.22	39.00	13.55	4.01	61.26

Use these figures for dry pressed used brick, clay brick tile, or adobe block with joints struck to average depth. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, Concrete Masonry Units (CMU), rough, porous surface, brush									
Masonry paint, water base, flat or gloss (material #31)									
Brush 1st coat									
Slow	110	100	44.60	19.55	4.68	44.60	13.08	13.11	95.02
Medium	130	88	39.00	21.35	6.16	44.32	17.96	10.78	100.57
Fast	150	75	33.40	23.17	8.19	44.53	23.52	6.96	106.37
Brush 2nd or additional coats									
Slow	185	180	44.60	11.62	2.80	24.78	7.45	7.46	54.11
Medium	210	168	39.00	13.21	3.82	23.21	10.06	6.04	56.34
Fast	230	155	33.40	15.11	5.34	21.55	13.02	3.85	58.87
Masonry paint, oil base (material #32)									
Brush 1st coat									
Slow	110	130	63.20	19.55	4.68	48.62	13.84	13.87	100.56
Medium	130	120	55.30	21.35	6.16	46.08	18.40	11.04	103.03
Fast	150	110	47.40	23.17	8.19	43.09	23.08	6.83	104.36
Brush 2nd or additional coats									
Slow	185	200	63.20	11.62	2.80	31.60	8.74	8.76	63.52
Medium	208	180	55.30	13.34	3.87	30.72	11.98	7.19	67.10
Fast	230	160	47.40	15.11	5.34	29.63	15.52	4.59	70.19
Epoxy coating, 2 part system clear (material #51)									
Brush 1st coat									
Slow	95	110	153.00	22.63	5.44	139.09	31.76	31.83	230.75
Medium	115	98	133.90	24.13	6.99	136.63	41.93	25.16	234.84
Fast	135	85	114.70	25.74	9.10	134.94	52.63	15.57	237.98
Brush 2nd or additional coats									
Slow	165	200	153.00	13.03	3.13	76.50	17.61	17.64	127.91
Medium	190	188	133.90	14.61	4.21	71.22	22.51	13.51	126.06
Fast	210	175	114.70	16.55	5.83	65.54	27.26	8.06	123.24
Waterproofing, clear hydro sealer, oil base (material #34)									
Brush 1st coat									
Slow	125	90	41.50	17.20	4.13	46.11	12.81	12.84	93.09
Medium	150	80	36.30	18.50	5.36	45.38	17.31	10.38	96.93
Fast	175	70	31.20	19.86	6.99	44.57	22.15	6.55	100.12
Brush 2nd or additional coats									
Slow	230	130	41.50	9.35	2.25	31.92	8.27	8.28	60.07
Medium	275	110	36.30	10.09	2.93	33.00	11.50	6.90	64.42
Fast	295	90	31.20	11.78	4.16	34.67	15.69	4.64	70.94

Use these figures for Concrete Masonry Units (CMU) such as split face, fluted, or slump block, whose surfaces are rough, porous or unfilled, with joints struck to average depth. The more porous the surface, the rougher the texture, the more time and material will be required. For heavy waterproofing applications, see Masonry under Industrial Painting Operations. "Slow" work is based on an hourly wage of \$21.50, "Medium" on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Masonry, Concrete Masonry Units (CMU), rough, porous surface, roll									
Masonry paint, water base, flat or gloss (material #31)									
Roll 1st coat									
Slow	245	90	44.60	8.78	2.10	49.56	11.49	11.51	83.44
Medium	300	78	39.00	9.25	2.66	50.00	15.48	9.29	86.68
Fast	350	65	33.40	9.93	3.52	51.38	20.09	5.94	90.86
Roll 2nd or additional coats									
Slow	275	160	44.60	7.82	1.88	27.88	7.14	7.16	51.88
Medium	325	143	39.00	8.54	2.48	27.27	9.57	5.74	53.60
Fast	420	125	33.40	8.27	2.92	26.72	11.75	3.48	53.14
Masonry paint, oil base (material #32)									
Roll 1st coat									
Slow	245	110	63.20	8.78	2.10	57.45	12.98	13.01	94.32
Medium	300	98	55.30	9.25	2.66	56.43	17.09	10.25	95.68
Fast	350	85	47.40	9.93	3.52	55.76	21.45	6.35	97.01
Roll 2nd or additional coats									
Slow	275	185	63.20	7.82	1.88	34.16	8.33	8.35	60.54
Medium	325	170	55.30	8.54	2.48	32.53	10.89	6.53	60.97
Fast	420	155	47.40	8.27	2.92	30.58	12.95	3.83	58.55
Epoxy coating, 2 part system, clear (material #51)									
Roll 1st coat									
Slow	220	100	153.00	9.77	2.36	153.00	31.37	31.44	227.94
Medium	275	88	133.90	10.09	2.93	152.16	41.29	24.78	231.25
Fast	325	75	114.70	10.69	3.79	152.93	51.89	15.35	234.65
Roll 2nd or additional coats									
Slow	250	175	153.00	8.60	2.06	87.43	18.64	18.68	135.41
Medium	300	160	133.90	9.25	2.66	83.69	23.90	14.34	133.84
Fast	395	145	114.70	8.80	3.10	79.10	28.21	8.35	127.56
Waterproofing, clear hydro sealer, oil base (material #34)									
Roll 1st coat									
Slow	170	110	41.50	12.65	3.03	37.73	10.15	10.17	73.73
Medium	200	98	36.30	13.88	4.01	37.04	13.73	8.24	76.90
Fast	245	85	31.20	14.18	5.00	36.71	17.33	5.13	78.35
Roll 2nd or additional coats									
Slow	275	175	41.50	7.82	1.88	23.71	6.35	6.36	46.12
Medium	300	145	36.30	9.25	2.66	25.03	9.24	5.54	51.72
Fast	325	115	31.20	10.69	3.79	27.13	12.89	3.81	58.31

Use these figures for Concrete Masonry Units (CMU) such as split face, fluted, or slump block, whose surfaces are rough, porous or unfilled, with joints struck to average depth. The more porous the surface, the rougher the texture, the more time and material will be required. For heavy waterproofing applications, see Masonry under Industrial Painting Operations. "Slow" work is based on an hourly wage of \$21.50, "Medium" on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Roll 2nd coat									
Slow	225	250	60.20	9.56	2.28	24.08	6.83	6.84	49.59
Medium	275	200	52.70	10.09	2.93	26.35	9.84	5.90	55.11
Fast	325	150	45.20	10.69	3.79	30.13	13.82	4.09	62.52
Roll 3rd or additional coats									
Slow	260	300	60.20	8.27	1.99	20.07	5.76	5.77	41.86
Medium	335	250	52.70	8.28	2.42	21.08	7.94	4.76	44.48
Fast	410	200	45.20	8.48	2.99	22.60	10.56	3.12	47.75

Use this table for butt or tongue and groove siding, joint lap, drop, beveled or board and batten siding in redwood, plywood, fir, hemlock or pine. Don't deduct for openings under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. For wood or composition drop siding with exposed beveled edges, multiply the surface area by 1.12 to allow for the extra time and material needed to paint the underside of each board. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Siding, smooth wood, spray									
Solid body or semi-transparent stain, water base (material #18 or #20)									
Spray 1st coat									
Slow	450	150	46.60	4.78	1.14	31.07	7.03	7.04	51.06
Medium	550	125	40.80	5.05	1.46	32.64	9.79	5.87	54.81
Fast	650	100	34.95	5.35	1.89	34.95	13.08	3.87	59.14
Spray 2nd coat									
Slow	550	250	46.60	3.91	.94	18.64	4.46	4.47	32.42
Medium	650	225	40.80	4.27	1.24	18.13	5.91	3.54	33.09
Fast	750	200	34.95	4.63	1.62	17.48	7.36	2.18	33.27
Spray 3rd or additional coats									
Slow	650	350	46.60	3.31	.80	13.31	3.31	3.32	24.05
Medium	750	325	40.80	3.70	1.06	12.55	4.33	2.60	24.24
Fast	850	300	34.95	4.09	1.46	11.65	5.33	1.58	24.11
Solid body or semi-transparent stain, oil base (material #19 or #21)									
Spray 1st coat									
Slow	450	170	55.15	4.78	1.14	32.44	7.29	7.31	52.96
Medium	550	150	48.30	5.05	1.46	32.20	9.68	5.81	54.20
Fast	650	130	41.35	5.35	1.89	31.81	12.11	3.58	54.74
Spray 2nd coat									
Slow	550	300	55.15	3.91	.94	18.38	4.41	4.42	32.06
Medium	650	273	48.30	4.27	1.24	17.69	5.80	3.48	32.48
Fast	750	245	41.35	4.63	1.62	16.88	7.17	2.12	32.42
Spray 3rd or additional coats									
Slow	650	400	55.15	3.31	.80	13.79	3.40	3.41	24.71
Medium	750	373	48.30	3.70	1.06	12.95	4.43	2.66	24.80
Fast	850	345	41.35	4.09	1.46	11.99	5.43	1.61	24.58
Penetrating oil stain (material #13)									
Spray 1st coat									
Slow	450	150	60.20	4.78	1.14	40.13	8.75	8.77	63.57
Medium	550	113	52.70	5.05	1.46	46.64	13.29	7.97	74.41
Fast	650	75	45.20	5.35	1.89	60.27	20.93	6.19	94.63
Spray 2nd coat									
Slow	550	225	60.20	3.91	.94	26.76	6.01	6.02	43.64
Medium	650	188	52.70	4.27	1.24	28.03	8.38	5.03	46.95
Fast	750	150	45.20	4.63	1.62	30.13	11.28	3.34	51.00
Spray 3rd or additional coats									
Slow	650	250	60.20	3.31	.80	24.08	5.35	5.36	38.90
Medium	750	225	52.70	3.70	1.06	23.42	7.05	4.23	39.46
Fast	850	200	45.20	4.09	1.46	22.60	8.72	2.58	39.45

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Waterproofing, clear hydro seal, oil base (material #34)									
Spray 1st coat									
Slow	550	250	41.50	3.91	.94	16.60	4.08	3.06	28.59
Medium	650	200	36.30	4.27	1.24	18.15	5.91	3.55	33.12
Fast	750	150	31.20	4.63	1.62	20.80	8.39	2.48	37.92
Spray 2nd coat									
Slow	650	300	41.50	3.31	.80	13.83	3.41	3.41	24.76
Medium	750	250	36.30	3.70	1.06	14.52	4.82	2.89	26.99
Fast	850	200	31.20	4.09	1.46	15.60	6.55	1.94	29.64
Spray 3rd or additional coats									
Slow	700	325	41.50	3.07	.74	12.77	3.15	3.16	22.89
Medium	800	275	36.30	3.47	1.00	13.20	4.42	2.65	24.74
Fast	900	225	31.20	3.86	1.36	13.87	5.92	1.75	26.76

Use this table for butt or tongue and groove siding, joint lap, drop, beveled or board and batten siding in redwood, plywood, fir, hemlock or pine. Don't deduct for openings under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. For wood or composition drop siding with exposed bevel edges, multiply the surface area by 1.12 to allow for the extra time and material needed to paint the underside of each board. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

Stair steps, interior or exterior, wood

To estimate the cost to paint or stain stairs, find the surface area. Then use the tables for wood siding. To find the surface area of each tread and riser, multiply the length by the width. To find the tread length, add the run, the rise, and the tread nosing. For example, a tread with a 12" run, an 8" rise, and 1" nosing, has a 23" surface area (measured one side). For estimating purposes, figure any length from 14" to 26" as 2 feet. Use the actual width of the tread if the stringers are calculated separately. If the tread in the example is 3 feet wide and you use 2 feet for the length, the surface area is 6 feet. If there are 15 treads, the total top surface area is 90 square feet.

If you're calculating the area to paint the stair treads and stringers in one operation, add 2 feet to the actual tread width to include the stringers. That would make the effective width of the tread in the example 5 feet. Then multiply 5 feet by 2 feet to find the area of each tread, 10 square feet. For 15 treads, the total surface area is 150 square feet.

National Painting Cost Estimator

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
Stair stringers, exterior, metal, shapes up to 14" wide, each side									
Metal primer - rust inhibitor, clean metal (material #35)									
Roll & brush prime coat									
Slow	50	120	63.00	43.00	10.32	52.50	20.11	20.15	146.08
Medium	55	115	55.10	50.45	14.58	47.91	28.24	16.94	158.12
Fast	60	110	47.30	57.92	20.46	43.00	37.62	11.13	170.13
Metal primer - rust inhibitor, rusty metal (material #36)									
Roll & brush prime coat									
Slow	50	120	74.40	43.00	10.32	62.00	21.91	21.96	159.19
Medium	55	115	65.10	50.45	14.58	56.61	30.41	18.25	170.30
Fast	60	110	55.80	57.92	20.46	50.73	40.02	11.84	180.97
Metal finish - synthetic enamel, off white (material #37)									
Roll & brush 1st or additional finish coats									
Slow	50	135	71.60	43.00	10.32	53.04	20.21	20.25	146.82
Medium	55	130	62.60	50.45	14.58	48.15	28.30	16.98	158.46
Fast	60	125	53.70	57.92	20.46	42.96	37.61	11.13	170.08
Metal finish - synthetic enamel, colors - except orange/red (material #38)									
Roll & brush 1st or additional finish coats									
Slow	50	135	75.30	43.00	10.32	55.78	20.73	20.77	150.60
Medium	55	130	65.90	50.45	14.58	50.69	28.93	17.36	162.01
Fast	60	125	56.50	57.92	20.46	45.20	38.31	11.33	173.22

Use these figures to paint each side of installed stair stringers. Measurements are based on linear feet of each stringer. Note: A two coat system, prime and finish, using oil base material is recommended for any metal surface. Although water base material is often used, it may cause oxidation, corrosion and rust. Using one coat of oil base paint on exterior metal may result in cracking, peeling or chipping without the proper prime coat application. Pre-primed steel or wrought iron generally requires only one coat to cover. The metal finish figures include minor touchup to the prime coat. If off white or other light colored finish paint is specified, make sure the prime coat is also a light color, or more than one finish coat will be necessary. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
Stair stringers, exterior, rough sawn wood up to 4" x 12"									
Solid body or semi-transparent stain, water or oil base (material #18, #19, #20 or #21)									
Roll & brush each coat									
Slow	40	70	50.88	53.75	12.90	72.69	26.47	26.53	192.34
Medium	45	65	44.55	61.67	17.81	68.54	37.01	22.20	207.23
Fast	50	60	38.15	69.50	24.54	63.58	48.86	14.45	220.93

Measurements are based on the linear feet of each stringer. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
Stair stringers, interior, metal, shapes up to 14" wide, each side									
Metal primer - rust inhibitor, clean metal (material #35)									
Roll & brush prime coat									
Slow	45	130	63.00	47.78	11.46	48.46	20.46	20.51	148.67
Medium	50	125	55.10	55.50	16.04	44.08	28.91	17.34	161.87
Fast	55	120	47.30	63.18	22.30	39.42	38.72	11.45	175.07
Metal primer - rust inhibitor, rusty metal (material #36)									
Roll & brush prime coat									
Slow	45	130	74.40	47.78	11.46	57.23	22.13	22.18	160.78
Medium	50	125	65.10	55.50	16.04	52.08	30.91	18.54	173.07
Fast	55	120	55.80	63.18	22.30	46.50	40.91	12.10	184.99
Metal finish - synthetic enamel, off white (material #37)									
Roll & brush 1st or additional finish coats									
Slow	45	145	71.60	47.78	11.46	49.38	20.64	20.68	149.94
Medium	50	140	62.60	55.50	16.04	44.71	29.06	17.44	162.75
Fast	55	135	53.70	63.18	22.30	39.78	38.83	11.49	175.58
Metal finish - synthetic enamel, colors - except orange/red (material #38)									
Roll & brush 1st or additional finish coats									
Slow	45	145	75.30	47.78	11.46	51.93	21.12	21.17	153.46
Medium	50	140	65.90	55.50	16.04	47.07	29.65	17.79	166.05
Fast	55	135	56.50	63.18	22.30	41.85	39.47	11.68	178.48

Use these figures to paint each side of installed stair stringers. Measurements are based on linear feet of each stringer. Note: A two coat system, prime and finish, using oil base material is recommended for any metal surface. Although water base material is often used, it may cause oxidation, corrosion and rust. Using one coat of oil base paint on exterior metal may result in cracking, peeling or chipping without the proper prime coat application. Pre-primed steel or wrought iron generally requires only one coat to cover. The metal finish figures include minor touchup to the prime coat. If off white or other light colored finish paint is specified, make sure the prime coat is also a light color, or more than one finish coat will be necessary. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
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Stair stringers, interior, rough sawn wood up to 4" x 12", each side

Solid body or semi-transparent stain, water or oil base (material #18, #19, #20 or #21)

Roll & brush each coat

Slow	35	60	50.88	61.43	14.74	84.80	30.58	30.65	222.20
Medium	40	55	44.55	69.38	20.05	81.00	42.61	25.56	238.60
Fast	45	50	38.15	77.22	27.26	76.30	56.04	16.58	253.40

Measurements are based on the linear feet of each side of each stringer. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

Stucco: see Plaster and stucco

Touchup, brush as required

	Percentage of interior manhours	Percentage of interior material costs
Interior & exterior		
Slow	20.0%	1.0%
Medium	18.0%	1.0%
Fast	15.0%	1.0%
Interior only		
Slow	10.0%	0.5%
Medium	9.0%	0.5%
Fast	7.5%	0.5%
	Percentage of exterior manhours	Percentage of exterior material costs
Exterior only		
Slow	10.0%	0.5%
Medium	9.0%	0.5%
Fast	7.5%	0.5%

Touchup will be required on nearly all repaint jobs. Using these percentages is an easy but accurate way to calculate touchup costs. When painting both interiors and exteriors, use the appropriate percentage of interior hours only. When painting either the interior or the exterior of a building, use the appropriate figures as indicated for touchup. Multiply the percentages above times the total manhours and material costs as indicated to allow enough time for production and customer service touchup. The skill of your paint crews and the type of job will determine the time and material needed. To calculate an accurate percentage for your company, use your actual time and material costs for touchup on previous projects (historical costs) and convert this figure into a percentage of the total job cost.

General Painting Costs

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
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Trellis or lattice, roll and brush

2" x 2" to 2" x 6", roll & brush all sides, each coat

Solid body or semi-transparent stain, water or oil base (material #18, #19, #20 or #21)

Slow	120	130	50.88	17.92	4.29	39.14	11.66	11.68	84.69
Medium	125	120	44.55	22.20	6.42	37.13	16.44	9.86	92.05
Fast	130	110	38.15	26.73	9.43	34.68	21.96	6.50	99.30

2" x 8" to 4" x 12", roll & brush all sides, each coat

Solid body or semi-transparent stain, water or oil base (material #18, #19, #20 or #21)

Slow	100	100	50.88	21.50	5.16	50.88	14.73	14.76	107.03
Medium	110	90	44.55	25.23	7.28	49.50	20.51	12.30	114.82
Fast	120	80	38.15	28.96	10.21	47.69	26.93	7.97	121.76

Measurements are based on accumulated total linear feet of each trellis or lattice member. These figures are based on roll and brush staining of all four sides and the ends of each member per coat. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

	SF surface area per manhour	SF surface area per gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
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Trellis or lattice, spray

2" x 2" at 3" on center with 2" x 8" supports, spray all sides, each coat

Solid body or semi-transparent stain, water or oil base (material #18, #19, #20 or #21)

Slow	50	60	50.88	43.00	10.32	84.80	26.24	26.30	190.66
Medium	55	55	44.55	50.45	14.58	81.00	36.51	21.90	204.44
Fast	60	50	38.15	57.92	20.46	76.30	47.95	14.18	216.81

Measurements are based on the square feet of the surface area footprint of the trellis or lattice structure. (The footprint is the surface area seen from the plan or overhead view.) These figures are based on staining all four sides of each member per coat. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor LF per manhour	Material coverage LF/gallon	Material cost per gallon	Labor cost per 100 LF	Labor burden 100 LF	Material cost per 100 LF	Overhead per 100 LF	Profit per 100 LF	Total price per 100 LF
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Valances for light fixtures, 2" x 8"

Solid body or semi-transparent stain, water or oil base (material #18, #19, #20 or #21)

Brush each coat

Slow	30	100	50.88	71.67	17.19	50.88	26.55	26.61	192.90
Medium	35	95	44.55	79.29	22.90	46.89	37.27	22.36	208.71
Fast	40	90	38.15	86.88	30.67	42.39	49.58	14.67	224.19

Rough sawn or resawn 2" x 8" wood valances are commonly found in baths and kitchens surrounding light fixtures or supporting plastic cracked-ice diffusers. Measurements are based on the linear feet of the valance. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

Walls, Concrete tilt-up: See Industrial, Institutional and Heavy Commercial Painting Costs, page 412

SAMPLE

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Walls, gypsum drywall, anti-graffiti stain eliminator, per 100 SF of wall area									
Water base primer and sealer (material #39)									
Roll & brush each coat									
Slow	375	450	45.90	5.73	1.39	10.20	3.29	3.30	23.91
Medium	400	425	40.20	6.94	2.00	9.46	4.60	2.76	25.76
Fast	425	400	34.40	8.18	2.87	8.60	6.10	1.80	27.55
Oil base primer and sealer (material #40)									
Roll & brush each coat									
Slow	375	400	53.40	5.73	1.39	13.35	3.89	3.90	28.26
Medium	400	388	46.70	6.94	2.00	12.04	5.25	3.15	29.38
Fast	425	375	40.00	8.18	2.87	10.67	6.74	1.99	30.45
Polyurethane 2 part system (material #41)									
Roll & brush each coat									
Slow	325	400	158.40	6.62	1.59	39.60	9.08	9.10	65.99
Medium	350	375	138.60	7.93	2.30	36.96	11.80	7.08	66.07
Fast	375	350	118.80	9.27	3.28	33.94	14.41	4.26	65.16

Measurements are based on the square feet of wall coated. Do not deduct for openings less than 100 square feet. These figures assume paint products are being applied over a smooth finish. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Walls, gypsum drywall, orange peel or knock-down, brush, per 100 SF of wall area									
Flat latex, water base (material #5)									
Brush 1st coat									
Slow	150	300	34.60	14.33	3.45	11.53	5.57	5.58	40.46
Medium	175	288	30.30	15.86	4.56	10.52	7.74	4.64	43.32
Fast	200	275	26.00	17.38	6.13	9.45	10.22	3.02	46.20
Brush 2nd coat									
Slow	175	350	34.60	12.29	2.93	9.89	4.77	4.78	34.66
Medium	200	338	30.30	13.88	4.01	8.96	6.71	4.03	37.59
Fast	225	325	26.00	15.44	5.44	8.00	8.96	2.65	40.49
Brush 3rd or additional coats									
Slow	200	400	34.60	10.75	2.58	8.65	4.18	4.19	30.35
Medium	225	375	30.30	12.33	3.55	8.08	5.99	3.60	33.55
Fast	250	350	26.00	13.90	4.91	7.43	8.13	2.41	36.78
Sealer (drywall), water base (material #1)									
Brush prime coat									
Slow	125	300	35.30	17.20	4.13	11.77	6.29	6.30	45.69
Medium	163	288	30.90	17.02	4.91	10.73	8.17	4.90	45.73
Fast	200	275	26.50	17.38	6.13	9.64	10.28	3.04	46.47
Sealer (drywall), oil base (material #2)									
Brush prime coat									
Slow	125	250	48.50	17.20	4.13	19.40	7.74	7.76	56.23
Medium	163	238	42.40	17.02	4.91	17.82	9.94	5.96	55.65
Fast	200	225	36.40	17.38	6.13	16.18	12.31	3.64	55.64
Enamel, water base (material #9)									
Brush 1st finish coat									
Slow	100	300	48.60	21.50	5.16	16.20	8.14	8.16	59.16
Medium	150	288	42.50	18.50	5.36	14.76	9.65	5.79	54.06
Fast	200	275	36.40	17.38	6.13	13.24	11.40	3.37	51.52
Brush 2nd or additional finish coats									
Slow	125	350	48.60	17.20	4.13	13.89	6.69	6.71	48.62
Medium	163	325	42.50	17.02	4.91	13.08	8.76	5.25	49.02
Fast	200	300	36.40	17.38	6.13	12.13	11.05	3.27	49.96
Enamel, oil base (material #10)									
Brush 1st finish coat									
Slow	100	325	70.80	21.50	5.16	21.78	9.20	9.22	66.86
Medium	150	300	62.00	18.50	5.36	20.67	11.13	6.68	62.34
Fast	200	275	53.10	17.38	6.13	19.31	13.28	3.93	60.03

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Brush 2nd or additional finish coats									
Slow	125	350	70.80	17.20	4.13	20.23	7.90	7.91	57.37
Medium	163	325	62.00	17.02	4.91	19.08	10.26	6.15	57.42
Fast	200	300	53.10	17.38	6.13	17.70	12.78	3.78	57.77
Epoxy coating, 2 part system - white (material #52)									
Brush 1st coat									
Slow	175	350	145.70	12.29	2.93	41.63	10.81	10.83	78.49
Medium	200	325	127.50	13.88	4.01	39.23	14.28	8.57	79.97
Fast	225	300	109.30	15.44	5.44	36.43	17.77	5.26	80.34
Brush 2nd or additional coats									
Slow	200	375	145.70	10.75	2.58	38.85	9.91	9.93	72.02
Medium	225	350	127.50	12.33	3.55	36.43	13.08	7.85	73.24
Fast	250	325	109.30	13.90	4.91	33.63	16.26	4.81	73.51

Measurements are based on the square feet of wall coated. Do not deduct for openings less than 100 square feet. These figures assume paint products are being applied over a smooth finish. For heights above 8 feet, use the High Time Difficulty Factors on page 139. These figures include brushing-in at corners when all walls are the same color, and at ceilings that are the same color or finished with acoustic spray-on texture. ADD for cutting-in at ceilings if they're a different color than the walls, or at corners where walls in the same room are painted different colors. Do not include cutting-in time for ceilings unless you're only painting the ceilings, not the walls. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Walls, gypsum drywall, orange peel or knock-down, roll, per 100 SF of wall area									
Flat latex, water base (material #5)									
Roll 1st coat									
Slow	400	300	34.60	5.38	1.29	11.53	3.46	3.47	25.13
Medium	538	275	30.30	5.16	1.49	11.02	4.42	2.65	24.74
Fast	675	250	26.00	5.15	1.81	10.40	5.38	1.59	24.33
Roll 2nd coat									
Slow	500	325	34.60	4.30	1.03	10.65	3.04	3.04	22.06
Medium	600	313	30.30	4.63	1.34	9.68	3.91	2.35	21.91
Fast	700	300	26.00	4.96	1.76	8.67	4.77	1.41	21.57
Roll 3rd or additional coats									
Slow	550	350	34.60	3.91	.94	9.89	2.80	2.81	20.35
Medium	650	338	30.30	4.27	1.24	8.96	3.62	2.17	20.26
Fast	750	325	26.00	4.63	1.62	8.00	4.42	1.31	19.98
Sealer (drywall), water base (material #1)									
Roll prime coat									
Slow	325	275	35.30	6.62	1.59	12.84	4.00	4.01	29.06
Medium	500	263	30.90	5.55	1.60	11.75	4.73	2.84	26.47
Fast	675	250	26.50	5.15	1.81	10.60	5.45	1.61	24.62
Sealer (drywall), oil base (material #2)									
Roll prime coat									
Slow	325	275	48.50	6.62	1.59	17.64	4.91	4.92	35.68
Medium	500	263	42.40	5.55	1.60	16.12	5.82	3.49	32.58
Fast	675	250	36.40	5.15	1.81	14.56	6.67	1.97	30.16
Enamel, water base (material #9)									
Roll 1st finish coat									
Slow	300	285	48.60	7.17	1.71	17.05	4.93	4.94	35.80
Medium	450	263	42.50	6.17	1.77	16.16	6.03	3.62	33.75
Fast	600	240	36.40	5.79	2.06	15.17	7.13	2.11	32.26
Roll 2nd finish coat									
Slow	325	300	48.60	6.62	1.59	16.20	4.64	4.65	33.70
Medium	475	288	42.50	5.84	1.71	14.76	5.57	3.34	31.22
Fast	625	275	36.40	5.56	1.96	13.24	6.44	1.90	29.10
Enamel, oil base (material #10)									
Roll 1st finish coat									
Slow	300	250	70.80	7.17	1.71	28.32	7.07	7.08	51.35
Medium	450	238	62.00	6.17	1.77	26.05	8.50	5.10	47.59
Fast	600	225	53.10	5.79	2.06	23.60	9.74	2.88	44.07

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Roll 2nd finish coat									
Slow	325	275	70.80	6.62	1.59	25.75	6.45	6.47	46.88
Medium	475	263	62.00	5.84	1.71	23.57	7.78	4.67	43.57
Fast	625	250	53.10	5.56	1.96	21.24	8.92	2.64	40.32
Epoxy coating, 2 part system - white (material #52)									
Roll 1st coat									
Slow	325	300	145.70	6.62	1.59	48.57	10.79	10.81	78.38
Medium	488	288	127.50	5.69	1.64	44.27	12.90	7.74	72.24
Fast	700	275	109.30	4.96	1.76	39.75	14.40	4.26	65.13
Roll 2nd or additional coats									
Slow	400	325	145.70	5.38	1.29	44.83	9.79	9.81	71.10
Medium	575	313	127.50	4.83	1.39	40.73	11.74	7.04	65.73
Fast	750	300	109.30	4.63	1.62	36.43	13.23	3.91	59.82

Measurements are based on the square feet of wall coated. Do not deduct for openings less than 100 square feet. These figures assume paint products are being applied over an orange peel or knock-down texture finish. For heights above 8 feet, use the High Time Difficulty Factors on page 139. These figures include brushing-in at corners when all walls are the same color, and at ceilings that are the same color or finished with acoustic spray-on texture. ADD for cutting-in at ceilings if they're a different color than the walls, or at corners where walls in the same room are painted different colors. Do not include cutting-in time for ceilings unless you're only painting the ceilings, not the walls. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	SF of floor area per manhour	SF of floor area per gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Walls, gypsum drywall, orange peel or knock-down, roll, per 100 SF of floor area									
Flat latex, water base (material #5)									
Roll 1st coat on <i>walls only</i>									
Slow	250	175	34.60	8.60	2.06	19.77	5.78	5.79	42.00
Medium	325	158	30.30	8.54	2.48	19.18	7.55	4.53	42.28
Fast	400	140	26.00	8.69	3.07	18.57	9.40	2.78	42.51
Roll 2nd coat on <i>walls only</i>									
Slow	300	200	34.60	7.17	1.71	17.30	4.98	4.99	36.15
Medium	400	188	30.30	6.94	2.00	16.12	6.27	3.76	35.09
Fast	500	175	26.00	6.95	2.45	14.86	7.52	2.22	34.00
Sealer (drywall), water base (material #1) on <i>walls and ceilings</i>									
Roll prime coat									
Slow	100	100	35.30	21.50	5.16	35.30	11.77	11.80	85.53
Medium	170	88	30.90	16.32	4.71	35.11	14.04	8.42	78.60
Fast	240	75	26.50	14.48	5.13	35.33	17.03	5.04	77.01
Sealer (drywall), oil base (material #2) on <i>walls and ceilings</i>									
Roll prime coat									
Slow	100	100	48.50	21.50	5.16	48.50	14.28	14.31	103.75
Medium	170	88	42.40	16.32	4.71	48.18	17.31	10.38	96.90
Fast	240	75	36.40	14.48	5.13	48.53	21.12	6.25	95.51
Enamel, water base (material #9) on <i>walls and ceilings</i>									
Roll 1st finish coat									
Slow	70	100	48.60	30.71	7.39	48.60	16.47	16.50	119.67
Medium	100	90	42.50	27.75	8.02	47.22	20.75	12.45	116.19
Fast	135	80	36.40	25.74	9.10	45.50	24.90	7.37	112.61
Roll 2nd finish coat									
Slow	125	150	48.60	17.20	4.13	32.40	10.21	10.23	74.17
Medium	175	125	42.50	15.86	4.56	34.00	13.61	8.17	76.20
Fast	225	100	36.40	15.44	5.44	36.40	17.76	5.25	80.29

General Painting Costs

	SF of floor area per manhour	SF of floor area per gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Enamel, oil base (material #10) on walls and ceilings									
Roll 1st finish coat									
Slow	70	100	70.80	30.71	7.39	70.80	20.69	20.73	150.32
Medium	100	90	62.00	27.75	8.02	68.89	26.17	15.70	146.53
Fast	135	80	53.10	25.74	9.10	66.38	31.38	9.28	141.88
Roll 2nd finish coat									
Slow	125	150	70.80	17.20	4.13	47.20	13.02	13.05	94.60
Medium	175	125	62.00	15.86	4.56	49.60	17.51	10.51	98.04
Fast	225	100	53.10	15.44	5.44	53.10	22.94	6.79	103.71

Measurements for these costs are based on square feet of floor area. The flat wall figures are for painting walls only but the Sealer and Enamel figures are for painting walls and ceilings in wet areas, i.e. kitchens, baths, utility areas, etc. The floor area measurements are from outside wall to outside wall or from the edge of the concrete slab or from the outside edge of an interior wall. This method of figuring the costs to paint the walls and ceilings is not as accurate as measuring the actual surface area of the wall or ceiling area directly, but it is much less time consuming. For heights above 8 feet, use the High Time Difficulty Factors on page 139. These figures include brushing-in at corners when all walls are the same color, and at ceilings that are the same color or finished with acoustic spray-on texture. ADD for cutting-in at ceilings if they're a different color than the walls, or at corners where walls in the same room are painted different colors. Do not include cutting-in time for ceilings unless you're only painting the ceilings, not the walls. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Walls, gypsum drywall, orange peel or knock-down, spray, per 100 SF of wall area									
Flat latex, water base (material #5)									
Spray 1st coat									
Slow	700	250	34.60	3.07	.74	13.84	3.35	3.36	24.36
Medium	800	225	30.30	3.47	1.00	13.47	4.49	2.69	25.12
Fast	900	200	26.00	3.86	1.36	13.00	5.65	1.67	25.54
Spray 2nd coat									
Slow	800	300	34.60	2.69	.64	11.53	2.83	2.83	20.52
Medium	900	275	30.30	3.08	.89	11.02	3.75	2.25	20.99
Fast	1000	250	26.00	3.48	1.22	10.40	4.68	1.39	21.17
Spray 3rd or additional coats									
Slow	850	325	34.60	2.53	.62	10.65	2.62	2.63	19.05
Medium	950	300	30.30	2.92	.84	10.10	3.47	2.08	19.41
Fast	1050	275	26.00	3.31	1.16	9.45	4.32	1.28	19.52
Sealer (drywall), water base (material #1)									
Spray prime coat									
Slow	575	250	35.30	3.74	.90	14.12	3.56	3.57	25.89
Medium	738	225	30.90	3.76	1.10	13.73	4.65	2.79	26.03
Fast	900	200	26.50	3.86	1.36	13.25	5.73	1.69	25.89
Sealer (drywall), oil base (material #2)									
Spray prime coat									
Slow	575	250	48.50	3.74	.90	19.40	4.57	4.58	33.19
Medium	738	225	42.40	3.76	1.10	18.84	5.92	3.55	33.17
Fast	900	200	36.40	3.86	1.36	18.20	7.26	2.15	32.83
Enamel, water base (material #9)									
Spray 1st finish coat									
Slow	500	250	48.60	4.30	1.03	19.44	4.71	4.72	34.20
Medium	675	238	42.50	4.11	1.18	17.86	5.79	3.47	32.41
Fast	850	225	36.40	4.09	1.46	16.18	6.73	1.99	30.45
Spray 2nd finish coat									
Slow	525	275	48.60	4.10	.97	17.67	4.32	4.33	31.39
Medium	700	263	42.50	3.96	1.16	16.16	5.32	3.19	29.79
Fast	875	250	36.40	3.97	1.39	14.56	6.18	1.83	27.93
Spray 3rd or additional finish coats									
Slow	575	300	48.60	3.74	.90	16.20	3.96	3.97	28.77
Medium	775	275	42.50	3.58	1.03	15.45	5.02	3.01	28.09
Fast	925	250	36.40	3.76	1.32	14.56	6.09	1.80	27.53

General Painting Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Enamel, oil base (material #10)									
Spray 1st finish coat									
Slow	500	250	70.80	4.30	1.03	28.32	6.39	6.41	46.45
Medium	675	225	62.00	4.11	1.18	27.56	8.22	4.93	46.00
Fast	850	200	53.10	4.09	1.46	26.55	9.94	2.94	44.98
Spray 2nd finish coat									
Slow	525	275	70.80	4.10	.97	25.75	5.86	5.87	42.55
Medium	700	250	62.00	3.96	1.16	24.80	7.48	4.49	41.89
Fast	875	225	53.10	3.97	1.39	23.60	8.98	2.66	40.60
Spray 3rd or additional finish coat									
Slow	575	300	70.80	3.74	.90	23.60	5.37	5.38	38.99
Medium	775	275	62.00	3.58	1.03	22.55	6.79	4.07	38.02
Fast	925	250	53.10	3.76	1.32	21.24	8.16	2.41	36.89

Measurements are based on the square feet of wall coated. Do not deduct for openings less than 100 square feet. These figures assume paint products are being applied over a smooth finish. For heights above 8 feet, use the High Time Difficulty Factors on page 139. These figures include spraying at corners when all walls are the same color, and at ceiling-to-wall intersection when ceilings are the same color. ADD for cutting-in at ceilings and protecting adjacent surfaces from overspray if they're a different color than the walls, or at corners where walls in the same room are painted different colors. Do not include cutting-in time for ceilings unless you're only painting the ceilings, not the walls. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Tank, silo, vessel, or hopper, spray, exterior walls only									
Metal primer, rust inhibitor - clean metal (material #35)									
Spray prime coat									
Slow	700	325	63.00	3.07	.74	19.38	4.41	4.42	32.02
Medium	750	300	55.10	3.70	1.06	18.37	5.79	3.47	32.39
Fast	800	275	47.30	4.34	1.54	17.20	7.15	2.12	32.35
Metal primer, rust inhibitor - rusty metal (material #36)									
Spray prime coat									
Slow	700	300	74.40	3.07	.74	24.80	5.44	5.45	39.50
Medium	750	275	65.10	3.70	1.06	23.67	7.11	4.27	39.81
Fast	800	250	55.80	4.34	1.54	22.32	8.74	2.59	39.53
Industrial enamel, oil base, high gloss - light colors (material #56)									
Spray 1st or additional finish coats									
Slow	850	350	64.80	2.53	.62	18.51	4.11	4.12	29.89
Medium	900	325	56.70	3.08	.89	17.45	5.36	3.21	29.99
Fast	950	300	48.60	3.66	1.28	16.20	6.56	1.94	29.64
Industrial enamel, oil base, high gloss - dark (OSHA) colors (material #57)									
Spray 1st or additional finish coats									
Slow	850	375	84.10	2.53	.62	22.43	4.86	4.87	35.31
Medium	900	350	73.60	3.08	.89	21.03	6.25	3.75	35.00
Fast	950	325	63.10	3.66	1.28	19.42	7.55	2.23	34.14
Epoxy coating, 2 part system, clear (material #51)									
Spray 1st coat									
Slow	700	325	153.00	3.07	.74	47.08	9.67	9.69	70.25
Medium	750	313	133.90	3.70	1.06	42.78	11.89	7.13	66.56
Fast	800	300	114.70	4.34	1.54	38.23	13.67	4.04	61.82
Spray 2nd or additional coats									
Slow	850	350	153.00	2.53	.62	43.71	8.90	8.92	64.68
Medium	900	338	133.90	3.08	.89	39.62	10.90	6.54	61.03
Fast	950	325	114.70	3.66	1.28	35.29	12.47	3.69	56.39
Epoxy coating, 2 part system, white (material #52)									
Spray 1st coat									
Slow	700	325	145.70	3.07	.74	44.83	9.24	9.26	67.14
Medium	750	313	127.50	3.70	1.06	40.73	11.38	6.83	63.70
Fast	800	300	109.30	4.34	1.54	36.43	13.11	3.88	59.30
Spray 2nd or additional coats									
Slow	850	350	145.70	2.53	.62	41.63	8.51	8.52	61.81
Medium	900	338	127.50	3.08	.89	37.72	10.42	6.25	58.36
Fast	950	325	109.30	3.66	1.28	33.63	11.96	3.54	54.07

Industrial, Institutional and Heavy Commercial Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Vinyl coating (material #59)									
Spray 1st coat									
Slow	600	225	144.00	3.58	.87	64.00	13.00	13.03	94.48
Medium	625	213	126.00	4.44	1.28	59.15	16.22	9.73	90.82
Fast	650	200	108.00	5.35	1.89	54.00	18.98	5.62	85.84
Spray 2nd or additional coats									
Slow	725	130	144.00	2.97	.71	110.77	21.75	21.79	157.99
Medium	750	105	126.00	3.70	1.06	120.00	31.19	18.72	174.67
Fast	775	80	108.00	4.48	1.59	135.00	43.73	12.94	197.74

See Figure 24 on page 399 to find the surface area of a spherical vessel. Use this table when estimating walls only. The cost tables for painting steel tank, silo, vessel or hopper roofs follow those for painting walls. For heights above 8 feet, use the High Time Difficulty Factors on page 139. Note: A two coat system, prime and finish, using oil base material is recommended for any metal surface. Using water base material may cause oxidation, corrosion and rust. One coat of oil base paint on metal surfaces may result in cracking, peeling or chipping without the proper prime coat application. If off-white or another light-colored finish paint is specified, make sure the prime coat is also a light color, or more than one finish coat will be necessary. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Tank, silo, vessel, or hopper, brush, exterior roof only									
Metal primer, rust inhibitor - clean metal (material #35)									
Brush prime coat									
Slow	175	425	63.00	12.29	2.93	14.82	5.71	5.72	41.47
Medium	200	400	55.10	13.88	4.01	13.78	7.92	4.75	44.34
Fast	225	375	47.30	15.44	5.44	12.61	10.39	3.07	46.95
Metal primer, rust inhibitor - rusty metal (material #36)									
Brush prime coat									
Slow	175	400	74.40	12.29	2.93	18.60	6.43	6.44	46.69
Medium	200	375	65.10	13.88	4.01	17.36	8.81	5.29	49.35
Fast	225	350	55.80	15.44	5.44	15.94	11.42	3.38	51.62
Industrial enamel, oil base, high gloss - light colors (material #56)									
Brush 1st or additional finish coats									
Slow	225	450	64.80	9.56	2.28	14.40	4.99	5.00	36.23
Medium	250	425	56.70	11.10	3.21	13.34	6.91	4.15	38.71
Fast	275	400	48.60	12.64	4.48	12.15	9.07	2.68	41.02
Industrial enamel, oil base, high gloss - dark (OSHA) colors (material #57)									
Brush 1st or additional finish coats									
Slow	225	475	84.10	9.56	2.28	17.71	5.62	5.63	40.80
Medium	250	450	73.60	11.10	3.21	16.36	7.67	4.60	42.94
Fast	275	425	63.10	12.64	4.48	14.85	9.90	2.93	44.80
Epoxy coating, 2 part system, clear (material #51)									
Brush 1st coat									
Slow	175	425	153.00	12.29	2.93	36.00	9.74	9.76	70.72
Medium	200	400	133.90	13.88	4.01	33.48	12.84	7.71	71.92
Fast	225	375	114.70	15.44	5.44	30.59	15.96	4.72	72.15
Brush 2nd or additional coats									
Slow	225	450	153.00	9.56	2.28	34.00	8.71	8.73	63.28
Medium	250	425	133.90	11.10	3.21	31.51	11.46	6.87	64.15
Fast	275	400	114.70	12.64	4.48	28.68	14.19	4.20	64.19
Epoxy coating, 2 part system, white (material #52)									
Brush 1st coat									
Slow	175	425	145.70	12.29	2.93	34.28	9.41	9.43	68.34
Medium	200	400	127.50	13.88	4.01	31.88	12.44	7.47	69.68
Fast	225	375	109.30	15.44	5.44	29.15	15.51	4.59	70.13
Brush 2nd or additional coats									
Slow	225	450	145.70	9.56	2.28	32.38	8.40	8.42	61.04
Medium	250	425	127.50	11.10	3.21	30.00	11.08	6.65	62.04
Fast	275	400	109.30	12.64	4.48	27.33	13.77	4.07	62.29

Industrial, Institutional and Heavy Commercial Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Vinyl coating (material #59)									
Brush 1st coat									
Slow	125	250	144.00	17.20	4.13	57.60	15.00	15.03	108.96
Medium	150	238	126.00	18.50	5.36	52.94	19.20	11.52	107.52
Fast	175	225	108.00	19.86	6.99	48.00	23.21	6.87	104.93
Brush 2nd or additional coats									
Slow	200	150	144.00	10.75	2.58	96.00	20.77	20.82	150.92
Medium	225	125	126.00	12.33	3.55	100.80	29.17	17.50	163.35
Fast	250	100	108.00	13.90	4.91	108.00	39.31	11.63	177.75

Use these figures to estimate labor and material costs for painting the exterior surface of a flat roof on a steel tank, silo, vessel or hopper. *Rule of thumb*: For a vaulted, peaked or sloping roof, figure the roof area as though it were flat and add 5%. Note: A two coat system, prime and finish, using oil base material is recommended for any metal surface. Using water base material may cause oxidation, corrosion and rust. One coat of oil base paint on metal surfaces may result in cracking, peeling or chipping without the proper prime coat application. If off-white or another light-colored finish paint is specified, make sure the prime coat is also a light color, or more than one finish coat will be necessary. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Tank, silo, vessel, or hopper, roll, exterior roof only									
Metal primer, rust inhibitor - clean metal (material #35)									
Roll prime coat									
Slow	325	400	63.00	6.62	1.59	15.75	4.55	4.56	33.07
Medium	350	375	55.10	7.93	2.30	14.69	6.23	3.74	34.89
Fast	375	350	47.30	9.27	3.28	13.51	8.08	2.39	36.53
Metal primer, rust inhibitor - rusty metal (material #36)									
Roll prime coat									
Slow	325	380	74.40	6.62	1.59	19.58	5.28	5.29	38.36
Medium	350	355	65.10	7.93	2.30	18.34	7.14	4.28	39.99
Fast	375	330	55.80	9.27	3.28	16.91	9.13	2.70	41.29
Industrial enamel, oil base, high gloss - light colors (material #56)									
Roll 1st or additional finish coats									
Slow	400	425	64.80	5.38	1.29	15.25	4.16	4.17	30.25
Medium	425	400	56.70	6.53	1.88	14.18	5.65	3.39	31.63
Fast	450	375	48.60	7.72	2.72	12.96	7.26	2.15	32.81
Industrial enamel, oil base, high gloss - dark (OSHA) colors (material #57)									
Roll 1st or additional finish coats									
Slow	400	450	84.10	5.38	1.29	18.69	4.82	4.83	35.01
Medium	425	425	73.60	6.53	1.88	17.32	6.44	3.86	36.03
Fast	450	400	63.10	7.72	2.72	15.78	8.13	2.41	36.76
Epoxy coating, 2 part system, clear (material #51)									
Roll 1st coat									
Slow	325	425	153.00	6.62	1.59	36.00	8.40	8.42	61.03
Medium	350	400	133.90	7.93	2.30	33.48	10.93	6.56	61.20
Fast	375	375	114.70	9.27	3.28	30.59	13.37	3.96	60.47
Roll 2nd or additional coats									
Slow	400	450	153.00	5.38	1.29	34.00	7.73	7.74	56.14
Medium	425	425	133.90	6.53	1.88	31.51	9.98	5.99	55.89
Fast	450	400	114.70	7.72	2.72	28.68	12.13	3.59	54.84

Industrial, Institutional and Heavy Commercial Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Epoxy coating, 2 part system, white (material #52)									
Roll 1st coat									
Slow	325	425	145.70	6.62	1.59	34.28	8.07	8.09	58.65
Medium	350	400	127.50	7.93	2.30	31.88	10.53	6.32	58.96
Fast	375	375	109.30	9.27	3.28	29.15	12.92	3.82	58.44
Roll 2nd or additional coats									
Slow	400	450	145.70	5.38	1.29	32.38	7.42	7.44	53.91
Medium	425	425	127.50	6.53	1.88	30.00	9.61	5.76	53.78
Fast	450	400	109.30	7.72	2.72	27.33	11.71	3.46	52.94

Use these figures to estimate labor and material costs for painting the exterior surface of a flat roof on a steel tank, silo, vessel or hopper. *Rule of thumb*: For a vaulted, peaked or sloping roof, figure the roof area as though it were flat and add 5%. Note: A two coat system, prime and finish, using oil base material is recommended for any metal surface. Using water base material may cause oxidation, corrosion and rust. One coat of oil base paint on metal surfaces may result in cracking, peeling or chipping without the proper prime coat application. If off-white or another light-colored finish paint is specified, make sure the prime coat is also a light color, or more than one finish coat will be necessary. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Tank, silo, vessel, or hopper, spray, exterior roof only									
Metal primer, rust inhibitor - clean metal (material #35)									
Spray prime coat									
Slow	850	325	63.00	2.53	.62	19.38	4.28	4.29	31.10
Medium	900	300	55.10	3.08	.89	18.37	5.59	3.35	31.28
Fast	950	275	47.30	3.66	1.28	17.20	6.87	2.03	31.04
Metal primer, rust inhibitor - rusty metal (material #36)									
Spray prime coat									
Slow	850	300	74.40	2.53	.62	24.80	5.31	5.32	38.58
Medium	900	275	65.10	3.08	.89	23.67	6.91	4.15	38.70
Fast	950	250	55.80	3.66	1.28	22.32	8.45	2.50	38.21
Industrial enamel, oil base, high gloss - light colors (material #56)									
Spray 1st or additional finish coats									
Slow	950	300	64.80	2.26	.54	21.60	4.64	4.65	33.69
Medium	1025	275	56.70	2.71	.80	20.62	6.03	3.62	33.78
Fast	1100	250	48.60	3.16	1.12	19.44	7.35	2.17	33.24
Industrial enamel, oil base, high gloss - dark (OSHA) colors (material #57)									
Spray 1st or additional finish coats									
Slow	950	325	84.10	2.26	.54	25.88	5.45	5.46	39.59
Medium	1025	300	73.60	2.71	.80	24.53	7.01	4.20	39.25
Fast	1100	275	63.10	3.16	1.12	22.95	8.44	2.50	38.17
Epoxy coating, 2 part system, clear (material #51)									
Spray 1st coat									
Slow	850	325	153.00	2.53	.62	47.08	9.54	9.56	69.33
Medium	900	313	133.90	3.08	.89	42.78	11.69	7.01	65.45
Fast	950	300	114.70	3.66	1.28	38.23	13.39	3.96	60.52
Spray 2nd or additional coats									
Slow	950	350	153.00	2.26	.54	43.71	8.84	8.86	64.21
Medium	1025	338	133.90	2.71	.80	39.62	10.78	6.47	60.38
Fast	1100	325	114.70	3.16	1.12	35.29	12.27	3.63	55.47
Epoxy coating, 2 part system, white (material #52)									
Spray 1st coat									
Slow	850	325	145.70	2.53	.62	44.83	9.11	9.13	66.22
Medium	900	313	127.50	3.08	.89	40.73	11.18	6.71	62.59
Fast	950	300	109.30	3.66	1.28	36.43	12.83	3.79	57.99
Spray 2nd or additional coats									
Slow	950	350	145.70	2.26	.54	41.63	8.44	8.46	61.33
Medium	1025	338	127.50	2.71	.80	37.72	10.30	6.18	57.71
Fast	1100	325	109.30	3.16	1.12	33.63	11.75	3.48	53.14

Industrial, Institutional and Heavy Commercial Costs

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Vinyl coating (material #59)									
Spray 1st coat									
Slow	750	225	144.00	2.87	.68	64.00	12.84	12.86	93.25
Medium	775	213	126.00	3.58	1.03	59.15	15.94	9.56	89.26
Fast	800	200	108.00	4.34	1.54	54.00	18.56	5.49	83.93
Spray 2nd or additional coats									
Slow	900	130	144.00	2.39	.57	110.77	21.61	21.65	156.99
Medium	950	105	126.00	2.92	.84	120.00	30.94	18.56	173.26
Fast	1000	80	108.00	3.48	1.22	135.00	43.31	12.81	195.82

Use these figures to estimate labor and material costs for painting the exterior surface of a flat roof on a steel tank, silo, vessel or hopper. *Rule of thumb*: For a vaulted, peaked or sloping roof, figure the roof area as though it were flat and add 5%. Note: A two coat system, prime and finish, using oil base material is recommended for any metal surface. Using water base material may cause oxidation, corrosion and rust. One coat of oil base paint on metal surfaces may result in cracking, peeling or chipping without the proper prime coat application. If off-white or another light-colored finish paint is specified, make sure the prime coat is also a light color, or more than one finish coat will be necessary. "Slow" work is based on an hourly wage of \$21.50, "Medium" work on an hourly wage of \$27.75, and "Fast" work on an hourly wage of \$34.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total price per 100 SF
Walls, concrete tilt-up, brush application									
Flat latex, water base (material #5)									
Brush 1st coat									
Slow	150	300	34.60	14.33	3.45	11.53	5.57	5.58	40.46
Medium	188	263	30.30	14.76	4.27	11.52	7.64	4.58	42.77
Fast	225	225	26.00	15.44	5.44	11.56	10.06	2.98	45.48
Brush 2nd or additional coats									
Slow	200	360	34.60	10.75	2.58	9.61	4.36	4.37	31.67
Medium	225	305	30.30	12.33	3.55	9.93	6.46	3.87	36.14
Fast	250	250	26.00	13.90	4.91	10.40	9.06	2.68	40.95
Enamel, water base (material #9)									
Brush 1st coat									
Slow	150	275	48.60	14.33	3.45	17.67	6.73	6.75	48.93
Medium	188	238	42.50	14.76	4.27	17.86	9.22	5.53	51.64
Fast	225	200	36.40	15.44	5.44	18.20	12.12	3.58	54.78
Brush 2nd or additional coats									
Slow	200	360	48.60	10.75	2.58	13.50	5.10	5.11	37.04
Medium	225	243	42.50	12.33	3.55	17.49	8.35	5.01	46.73
Fast	250	225	36.40	13.90	4.91	16.18	10.85	3.21	49.05
Enamel, oil base (material #10)									
Brush 1st coat									
Slow	150	300	70.80	14.33	3.45	23.60	7.86	7.88	57.12
Medium	188	250	62.00	14.76	4.27	24.80	10.96	6.57	61.36
Fast	225	200	53.10	15.44	5.44	26.55	14.71	4.35	66.49
Brush 2nd or additional coats									
Slow	200	400	70.80	10.75	2.58	17.70	5.90	5.91	42.84
Medium	225	325	62.00	12.33	3.55	19.08	8.74	5.25	48.95
Fast	250	250	53.10	13.90	4.91	21.24	12.42	3.67	56.14
Epoxy coating, 2 part system, clear (material #51)									
Brush 1st coat									
Slow	150	330	153.00	14.33	3.45	46.36	12.18	12.21	88.53
Medium	188	290	133.90	14.76	4.27	46.17	16.30	9.78	91.28
Fast	225	250	114.70	15.44	5.44	45.88	20.70	6.12	93.58
Brush 2nd or additional coats									
Slow	200	380	153.00	10.75	2.58	40.26	10.18	10.20	73.97
Medium	225	340	133.90	12.33	3.55	39.38	13.82	8.29	77.37
Fast	250	300	114.70	13.90	4.91	38.23	17.68	5.23	79.95

Field Production Times and Rates

Date	>	10-15-20XX	Start	Finish	Total	LF or SF	LF or SF	Book	Your
Painter		Operation	times	times	hours	completed	per hour	rate	rate
David H.	1	Cutting-in ceiling	7:05	8:35	1.5	28 LF	18.67		
	2	8' 0" height	8:40	9:40	1	20 LF	20		
	3		9:40	11:55	2.25	38 LF	16.89		
	4		12:45	2:00	1.25	20 LF	16		
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
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	34								
	35								
	36								
	37								

Figure 25
Sample field production times and rates form

Field Production Times and Rates

Date Painter	>	Operation	Start times	Finish times	Total hours	LF or SF completed	LF or SF per hour	Average rate	Your rate
	1								
	2								
	3								
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
	13								
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	28								
	29								
	30								
	31								
	32								
	33								
	34								
	35								
	36								
	37								

Figure 26
Blank field production times and rates form

Part IV

Wallcovering Costs

SAMPLE

National Painting Cost Estimator

	American rolls per gallon	Linear yards per gallon	Adhesive cost per gallon
Adhesive coverage, rolls to yards conversion (2.5 yards per roll)			
Ready-mix			
Light weight vinyl (material #60)			
Slow	8.0	20.0	14.60
Medium	7.5	18.8	12.80
Fast	7.0	17.5	10.90
Heavy weight vinyl (material #61)			
Slow	6.0	15.0	16.30
Medium	5.5	13.8	14.20
Fast	5.0	12.5	12.20
Cellulose (material #62)			
Slow	8.0	20.0	15.50
Medium	7.0	17.5	13.60
Fast	6.0	15.0	11.60
Vinyl to vinyl (material #63)			
Slow	7.0	17.5	24.90
Medium	6.5	16.3	21.80
Fast	6.0	15.0	18.70
Powdered cellulose (material #64)			
Slow	12.0	30.0	7.60
Medium	11.0	27.5	6.70
Fast	10.0	25.0	5.70
Powdered vinyl (material #65)			
Slow	12.0	30.0	9.10
Medium	11.0	27.5	7.90
Fast	10.0	25.0	6.80
Powdered wheat paste (material #66)			
Slow	13.0	32.5	6.90
Medium	12.0	30.0	6.10
Fast	11.0	27.5	5.20

These figures are based on rolls or yards per gallon of liquid paste. Vinyl to vinyl ready-mix is usually distributed in pint containers which have been converted to gallons. One pint makes 6 gallons. Powdered adhesive coverage is based on water added to powder to prepare gallon quantities. One pound of powdered vinyl or wheat paste makes 1.75 gallons of liquid paste when mixed with about 1-1/2 gallons of cold water. Two ounces of powdered cellulose makes 1.75 gallons of liquid paste.

	Labor SF per manhour	Material coverage SF/gallon	Material cost per gallon	Labor cost per 100 SF	Labor burden 100 SF	Material cost per 100 SF	Overhead per 100 SF	Profit per 100 SF	Total cost per 100 SF
Adhesive coverage and application rates, square foot basis									
Ready-mix									
Light weight vinyl (material #60)									
Slow	350	275	14.60	6.00	1.45	5.31	2.42	2.43	17.61
Medium	375	250	12.80	7.27	2.11	5.12	3.62	2.17	20.29
Fast	400	225	10.90	8.56	3.03	4.84	5.09	1.51	23.03
Heavy weight vinyl (material #61)									
Slow	275	200	16.30	7.64	1.84	8.15	3.35	3.36	24.34
Medium	300	175	14.20	9.08	2.62	8.11	4.95	2.97	27.73
Fast	325	150	12.20	10.54	3.73	8.13	6.94	2.05	31.39
Cellulose (material #62)									
Slow	325	250	15.50	6.46	1.56	6.20	2.70	2.71	19.63
Medium	350	225	13.60	7.79	2.26	6.04	4.02	2.41	22.52
Fast	375	200	11.60	9.13	3.24	5.80	5.63	1.66	25.46
Vinyl to vinyl (material #63)									
Slow	300	225	24.90	7.00	1.67	11.07	3.75	3.76	27.25
Medium	325	200	21.80	8.38	2.44	10.90	5.43	3.26	30.41
Fast	350	175	18.70	9.79	3.46	10.69	7.42	2.20	33.56
Powdered cellulose (material #64)									
Slow	425	400	7.60	4.94	1.18	1.90	1.53	1.53	11.08
Medium	450	370	6.70	6.06	1.74	1.81	2.41	1.44	13.46
Fast	475	335	5.70	7.21	2.57	1.70	3.55	1.05	16.08
Powdered vinyl (material #65)									
Slow	425	400	9.10	4.94	1.18	2.28	1.60	1.60	11.60
Medium	450	370	7.90	6.06	1.74	2.14	2.49	1.49	13.92
Fast	475	335	6.80	7.21	2.57	2.03	3.65	1.08	16.54
Powdered wheat paste (material #66)									
Slow	450	425	6.90	4.66	1.12	1.62	14.30	1.41	10.23
Medium	475	400	6.10	5.75	1.66	1.53	15.04	1.34	12.50
Fast	500	375	5.20	6.85	2.42	1.39	15.86	.98	14.94

These figures are based on gallon quantities of liquid paste. Vinyl to vinyl ready-mix is usually distributed in pint containers which have been converted to gallons. Powdered adhesive coverage is based on water added to powder to prepare gallon quantities. Typically, powdered ready-mix material is in 2 to 4 ounce packages which will adhere 6 to 12 rolls of wallcovering. See the Adhesive coverage table on the previous page for conversion to rolls and yards. "Slow" work is based on an hourly rate of \$21.00, "Medium" work on an hourly rate of \$27.25, and "Fast" work on an hourly rate of \$34.25.

National Painting Cost Estimator

	Labor rolls per day	Material by others	Labor cost per 10 rolls	Labor burden 10 rolls	Overhead per 10 rolls	Profit per 10 rolls	Total cost per 10 rolls	Total price per roll
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Wallcovering application, average labor production, medium rooms

Walls

Slow	17	--	98.82	23.72	23.28	23.33	169.15	16.92
Medium	19	--	114.74	33.19	36.98	22.19	207.10	20.71
Fast	21	--	130.48	46.08	54.73	16.19	247.48	24.75

Ceilings

Slow	15	--	112.00	26.87	26.39	26.44	191.70	19.17
Medium	17	--	128.24	37.08	41.33	24.80	231.45	23.14
Fast	19	--	144.21	50.93	60.49	17.89	273.52	27.35

The table above assumes that residential rolls are hand pasted. Add surface preparation time on page 425 as needed. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$21.00, "Medium" work on an hourly wage of \$27.25, and "Fast" work on an hourly wage of \$34.25.

	Labor rolls per day	Material by others	Labor cost per 10 rolls	Labor burden 10 rolls	Overhead per 10 rolls	Profit per 10 rolls	Total cost per 10 rolls	Total price per roll
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Wallcovering application, average labor production, small rooms

Walls

Slow	7	--	240.00	57.61	56.54	56.66	410.81	41.08
Medium	9	--	242.22	70.05	78.06	46.83	437.16	43.71
Fast	11	--	249.09	87.94	104.48	30.91	472.42	47.24

Ceilings

Slow	6	--	280.00	67.19	65.97	66.11	479.27	47.93
Medium	8	--	272.50	78.80	87.81	52.69	491.80	49.18
Fast	10	--	274.00	96.72	114.92	33.99	519.63	51.96

The table above assumes that residential rolls are hand pasted. Add surface preparation time on page 425 as needed. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$21.00, "Medium" work on an hourly wage of \$27.25, and "Fast" work on an hourly wage of \$34.25.

	Labor LF per manhour	Material by others	Labor cost per 100 LF	Labor burden 100 LF	Overhead per 100 LF	Profit per 100 LF	Total cost per 100 LF	Total price per LF
--	----------------------------	--------------------------	-----------------------------	---------------------------	---------------------------	-------------------------	-----------------------------	--------------------------

Borders 3" to 8" wide, commercial, machine pasted

Medium size rooms (10 x 10 range)

Slow	140	--	14.29	3.42	3.37	3.37	24.45	.24
Medium	158	--	16.30	4.71	3.99	4.00	29.00	.29
Fast	175	--	18.43	6.48	4.74	4.75	34.40	.34

The table above assumes that commercial rolls are machine pasted. ADD for surface preparation time from page 425 or from the tables in Part II, Preparation costs beginning on page 295, as needed. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.00, "Medium" work on an hourly wage of \$25.75, and "Fast" work on an hourly wage of \$32.25.

	Labor LF per manhour	Material by others	Labor cost per 100 LF	Labor burden 100 LF	Overhead per 100 LF	Profit per 100 LF	Total cost per 100 LF	Total price per LF
--	----------------------------	--------------------------	-----------------------------	---------------------------	---------------------------	-------------------------	-----------------------------	--------------------------

Borders 3" to 8" wide, residential, hand pasted

Medium size rooms (bedrooms, dining rooms)

Slow	100	--	21.00	5.04	4.95	4.96	35.95	.36
Medium	113	--	24.12	6.97	7.77	4.66	43.52	.44
Fast	125	--	27.40	9.67	11.49	3.40	51.96	.52

The table above assumes that residential rolls are hand pasted. ADD for surface preparation time from table at bottom or from the tables in Part II, Preparation costs beginning on page 295, as needed. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$21.00, "Medium" work on an hourly wage of \$27.25, and "Fast" work on an hourly wage of \$34.25.

	Labor SF per manhour	Material by others	Labor cost per 100 SF	Labor burden 100 SF	Overhead per 100 SF	Profit per 100 SF	Total cost per 100 SF	Total price per SF
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Flexible wood sheet and veneer

Wood veneer flexwood (residential or commercial)

Medium size rooms (bedrooms, dining rooms, offices, reception areas)

Slow	14	--	146.43	35.15	34.50	34.57	250.65	2.51
Medium	20	--	132.50	38.30	42.70	25.62	239.12	2.39
Fast	26	--	127.88	45.15	53.64	15.87	242.54	2.43

Flexi-wall systems (residential or commercial)

Medium size rooms (bedrooms, dining rooms, offices, reception areas)

Slow	12	--	170.83	40.99	40.25	40.33	292.40	2.92
Medium	18	--	147.22	42.57	47.44	28.47	265.70	2.66
Fast	24	--	138.54	48.93	58.11	17.19	262.77	2.63

Flexible wood sheet and veneer appears under section 097416 in the Construction Specifications Institute (CSI) indexing system. For heights above 8 feet, use the High Time Difficulty Factors on page 139. The labor rates in the table above are an average of the residential and commercial rates. Thus, "Slow" work is based on an hourly rate of \$20.50, "Medium" work on an hourly rate of \$26.50, and "Fast" work on an hourly rate of \$33.25.

	Labor SF per manhour	Material by others	Labor cost per 100 SF	Labor burden 100 SF	Overhead per 100 SF	Profit per 100 SF	Total cost per 100 SF	Total price per SF
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Surface preparation, wallcovering

Rule of thumb, typical preparation

Slow	100	--	21.00	5.04	8.07	2.39	36.50	.37
Medium	125	--	21.80	6.30	8.71	2.58	39.39	.39
Fast	150	--	22.83	8.08	9.58	2.83	43.32	.43

Putty cracks, sand and wash

Slow	120	--	17.50	4.19	6.73	1.99	30.41	.30
Medium	135	--	20.19	5.84	8.07	2.39	36.49	.36
Fast	150	--	22.83	8.08	9.58	2.83	43.32	.43

For additional preparation tasks see the Preparation operation tables beginning on page 295. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly rate of \$21.00, "Medium" work on an hourly rate of \$27.25, and "Fast" work on an hourly rate of \$34.25.

National Painting Cost Estimator

	Labor yards per day	Material by others	Labor cost per 10 yards	Labor burden 10 yards	Overhead per 10 yards	Profit per 10 yards	Total cost per 10 yards	Total price per yard
Vinyl wallcover, commercial, machine pasted, yards per day, 48" to 54" width								
Cut-up areas (stair halls, landing areas)								
Walls								
Slow	40	--	40.00	9.60	9.42	9.44	68.46	6.85
Medium	45	--	45.78	13.23	14.75	8.85	82.61	8.26
Fast	50	--	51.60	18.21	21.64	6.40	97.85	9.79
Ceilings								
Slow	33	--	48.48	11.64	11.42	11.45	82.99	8.30
Medium	38	--	54.21	15.65	17.47	10.48	97.81	9.78
Fast	43	--	60.00	21.15	25.17	7.44	113.76	11.38
Small rooms (restrooms, utility rooms)								
Walls								
Slow	42	--	38.10	9.14	8.98	9.00	65.22	6.52
Medium	50	--	41.20	11.90	13.28	7.97	74.35	7.44
Fast	55	--	46.91	16.57	19.68	5.82	88.98	8.90
Ceilings								
Slow	38	--	42.11	10.09	9.92	9.94	72.06	7.21
Medium	46	--	44.78	12.94	14.43	8.66	80.81	8.08
Fast	51	--	50.59	17.87	21.22	6.28	95.96	9.60
Medium rooms (offices)								
Walls								
Slow	60	--	26.67	6.39	6.28	6.30	45.64	4.57
Medium	75	--	27.47	7.94	8.85	5.31	49.57	4.96
Fast	90	--	28.67	10.12	12.02	3.56	54.37	5.44
Ceilings								
Slow	56	--	28.57	6.87	6.73	6.75	48.92	4.89
Medium	69	--	29.86	8.61	9.62	5.77	53.86	5.39
Fast	81	--	31.85	11.26	13.36	3.95	60.42	6.04
Large rooms (conference rooms)								
Walls								
Slow	76	--	21.05	5.06	4.96	4.97	36.04	3.60
Medium	89	--	23.15	6.69	7.46	4.48	41.78	4.18
Fast	102	--	25.29	8.92	10.61	3.14	47.96	4.80
Ceilings								
Slow	66	--	24.24	5.82	5.71	5.72	41.49	4.15
Medium	79	--	26.08	7.54	8.41	5.04	47.07	4.71
Fast	91	--	28.35	10.00	11.89	3.52	53.76	5.38

Wallcovering Costs

	Labor yards per day	Material by others	Labor cost per 10 yards	Labor burden 10 yards	Overhead per 10 yards	Profit per 10 yards	Total cost per 10 yards	Total price per yard
Large wall areas (corridors, long hallways)								
Walls								
Slow	89	--	17.98	4.32	4.24	4.25	30.79	3.08
Medium	102	--	20.20	5.82	6.51	3.91	36.44	3.65
Fast	114	--	22.63	8.00	9.49	2.81	42.93	4.29
Ceilings								
Slow	76	--	21.05	5.06	4.96	4.97	36.04	3.60
Medium	89	--	23.15	6.69	7.46	4.48	41.78	4.18
Fast	102	--	25.29	8.92	10.61	3.14	47.96	4.80
Paper-backed vinyl on medium room walls								
Bedrooms, dining rooms								
Slow	43	--	37.21	8.92	8.77	8.79	63.69	6.37
Medium	53	--	38.87	11.21	12.53	7.52	70.13	7.02
Fast	64	--	40.31	14.23	16.91	5.00	76.45	7.65
Cork wallcovering on medium room walls								
Bedrooms, dining rooms								
Slow	43	--	37.21	8.92	8.77	8.79	63.69	6.37
Medium	53	--	38.87	11.21	12.53	7.52	70.13	7.02
Fast	64	--	40.31	14.23	16.91	5.00	76.45	7.65

Vinyl and vinyl-coated wallcovering appear under section 097216 in the Construction Specifications Institute (CSI) indexing system. Cork wallcovering appears in section 097213. The table above assumes that commercial rolls are machine pasted. ADD for surface preparation time from page 425 or from the tables in Part II, Preparation costs beginning on page 295, as needed. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.00, "Medium" work on an hourly wage of \$25.75, and "Fast" work on an hourly wage of \$32.25.

National Painting Cost Estimator

	Labor rolls per day	Material by others	Labor cost per 10 rolls	Labor burden 10 rolls	Overhead per 10 rolls	Profit per 10 rolls	Total cost per 10 rolls	Total price per roll
Vinyl wallcovering, residential, hand pasted, single rolls per day 18" to 27" wide								
Cut-up areas (stair halls, landing areas)								
Walls								
Slow	10	--	168.00	40.32	39.58	39.66	287.56	28.76
Medium	11	--	198.18	57.32	63.86	38.32	357.68	35.76
Fast	12	--	228.33	80.62	95.77	28.33	433.05	43.30
Ceilings								
Slow	7	--	240.00	57.61	56.54	56.66	410.81	41.08
Medium	8	--	272.50	78.80	87.81	52.69	491.80	49.18
Fast	9	--	304.44	107.48	127.69	37.77	577.38	57.74
Small rooms (baths, utility rooms)								
Walls								
Slow	11	--	152.73	36.66	35.98	36.06	261.43	26.14
Medium	12	--	181.67	52.54	58.54	35.13	327.88	32.78
Fast	13	--	210.77	74.41	88.40	26.15	399.73	39.97
Ceilings								
Slow	9	--	186.67	44.80	43.98	44.07	319.52	31.95
Medium	10	--	218.00	63.04	70.25	42.15	393.44	39.34
Fast	11	--	249.09	87.94	104.48	30.91	472.42	47.24
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	17	--	98.82	23.72	23.28	23.33	169.15	16.92
Medium	19	--	114.74	33.19	36.98	22.19	207.10	20.71
Fast	21	--	130.48	46.08	54.73	16.19	247.48	24.75
Ceilings								
Slow	15	--	112.00	26.87	26.39	26.44	191.70	19.17
Medium	17	--	128.24	37.08	41.33	24.80	231.45	23.14
Fast	19	--	144.21	50.93	60.49	17.89	273.52	27.35
Large rooms (living rooms)								
Walls								
Slow	20	--	84.00	20.16	19.79	19.83	143.78	14.38
Medium	23	--	94.78	27.40	30.54	18.33	171.05	17.10
Fast	26	--	105.38	37.21	44.20	13.07	199.86	19.99
Ceilings								
Slow	18	--	93.33	22.39	21.99	22.04	159.75	15.98
Medium	20	--	109.00	31.52	35.13	21.08	196.73	19.67
Fast	22	--	124.55	43.94	52.24	15.45	236.18	23.62

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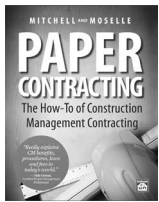
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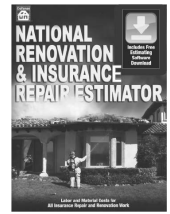
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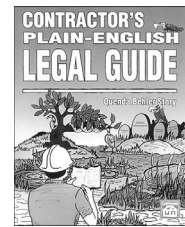
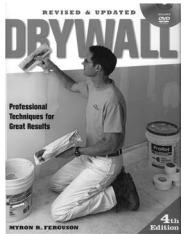
For today's contractors, legal problems are like snakes in the swamp — you might not see them, but you know they're there. This book tells you where the snakes are hiding and directs you to the safe path. With the directions in this easy-to-read handbook you're less likely to need a \$200-an-hour lawyer. Includes simple directions for starting your business, writing contracts that cover just about any eventuality, collecting what's owed you, filing liens, protecting yourself from unethical subcontractors, and more. For about the price of 15 minutes in a lawyer's office, you'll have a guide that will make many of those visits unnecessary. Includes a CD-ROM with blank copies of all the forms and contracts in the book. **272 pages, 8½ x 11, \$49.50.**

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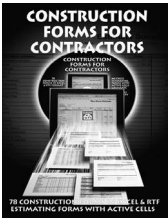
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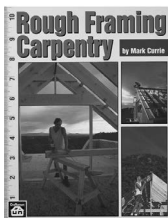
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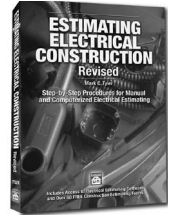
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