



2017 NATIONAL PAINTING COST ESTIMATOR

By Dennis D. Gleason, CPE

SAMPLE

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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.

	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	\$20.75	24.0%	\$4.98	\$25.73	20%	19.0%	16%
Medium (2P)	Average	27.00	28.9%	7.80	34.80	30%	25.0%	12%
Fast (3P)	High	33.75	35.3%	11.91	45.66	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	33.40	5.19	1.24	11.13	3.34	3.35	24.25
Medium	538	275	29.30	5.02	1.45	10.65	4.28	2.57	23.97
Fast	675	250	25.10	5.00	1.76	10.04	5.21	1.54	23.55
Your customized figures				3.11	.75	10.65	3.63	2.18	20.32

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 \$20.75 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 Part I 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 29.30 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. Throughout this book the painting labor rate for "Fast" work is assumed to be \$33.75 per hour. See page 29 for the wallcovering application rate. I can't use the labor cost per 100 SF for "Fast" work because the journeymen on my job earn \$21.00 per hour. That pay rate is a little higher than the "Slow" pay rate as shown 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 10.65, 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: $\$3.11 + \$.75 + \$10.65 = \$14.51 \times .25 = \$3.63$.

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 + \$.75 + \$10.65 + \$3.63 = \$18.14 \times .12 = \2.18 .

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 + \$.75 + \$10.65 + \$3.63 + \$2.18 = \20.32 . 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 \$33.75 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 (5.19), 5 (1.24) and 6 (11.13) of Figure 2. The total of those three costs is \$17.56. 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 \$5.21 in Figure 2. The correct overhead figure is \$5.44, 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 \$23.55 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

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
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.

Column 1: Labor Productivity

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.

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

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	37.80	30.24	37.80	40.82	40.80
Undercoat (doors, casings and other paint grade wood)					
#3 - Water base	33.55	26.84	33.55	36.23	36.20
#4 - Oil base	39.65	31.72	39.65	42.82	42.80
Flat latex (walls, ceilings & paint grade baseboard)					
#5 - Water base latex paint	30.95	24.76	30.95	33.43	33.40
Acoustic spray-on texture					
#6 - Primer	25.00	20.00	25.00	27.00	27.00
#7 - Finish	29.90	23.92	29.90	32.29	32.30
#8 - Dripowder mixed (pound)	1.00	0.80	1.00	1.08	1.08
Enamel (wet area walls & ceilings and openings)					
#9 - Water base enamel	44.85	35.88	44.85	48.44	48.40
#10 - Oil base enamel	55.35	44.28	55.35	59.78	59.80
System estimate (cabinets, bookshelves, molding, interior windows)					
#11a - Wiping stain, oil base	56.60	45.28	56.60	61.13	61.10
#11b - Sanding sealer, lacquer	43.55	34.84	43.55	47.03	47.00
#11c - Lacquer, semi gloss	44.40	35.52	44.40	47.95	48.00
#11 - Stain, seal & 2 coat lacquer system					
Average cost (11a + b + (2 x c))		37.79	47.24	51.02	51.00
#12 - Shellac, clear	64.25	51.40	64.25	69.39	69.40
#13 - Penetrating oil stain	51.25	41.00	51.25	55.35	55.40
#14 - Penetrating stain wax (molding)	44.55	35.64	44.55	48.11	48.10
#15 - Wax, per pound (floors)	16.30	13.04	16.30	17.60	17.60
#16 - Glazing (mottling over enamel)	44.50	35.60	44.50	48.06	48.10
#17 - Spray can, each (HVAC registers)	10.85	8.68	10.85	11.72	11.70
Exterior:					
Solid body/color stain (beams, light valance, fascia, overhang, siding, plant-on trim, wood shelves)					
#18 - Water base stain	42.60	34.08	42.60	46.01	46.00
#19 - Oil base stain	53.90	43.12	53.90	58.21	58.20
Semi-transparent stain (beams, siding, T & G ceiling)					
#20 - Water base stain	42.85	34.28	42.85	46.28	46.30
#21 - Oil base stain	50.50	40.40	50.50	54.54	54.50
#22 - Polyurethane (exterior doors)	72.80	58.24	72.80	78.62	78.60
#23 - Marine spar varnish, flat or gloss (exterior doors)					
Interior or exterior	77.45	61.96	77.45	83.65	83.70

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	46.85	37.48	46.85	50.60	50.60
#25 - Oil base	54.10	43.28	54.10	58.43	58.40
Porch & deck enamel - interior or exterior					
#26 - Water base enamel	49.10	39.28	49.10	53.03	53.00
#27 - Oil base enamel	58.28	46.62	58.28	62.94	62.90
#28 - Epoxy, 1 part, water base	65.10	52.08	65.10	70.31	70.30
#29 - Epoxy, 2 part SYSTEM	96.25	77.00	96.25	103.95	104.00
System estimate (exterior windows)					
#30a - Wiping stain, oil base	49.95	39.96	49.95	53.95	54.00
#30b - Sanding sealer, varnish	54.00	43.20	54.00	58.32	58.30
#30c - Varnish, flat or gloss	78.55	62.84	78.55	84.83	84.80
#30 - Stain, seal & 1 coat varnish SYSTEM					
Average cost (30a + b + c))	48.67	60.84	65.71	65.70	
Masonry paint (masonry, concrete, plaster)					
#31 - Water base, flat or gloss	38.75	31.00	38.75	41.85	41.90
#32 - Oil base paint	58.00	46.40	58.00	62.64	62.60
#33 - Block filler	31.25	25.00	31.25	33.75	33.80
#34 - Waterproofing, clear hydro seal	36.55	29.24	36.55	39.47	39.50
Metal primer, rust inhibitor					
#35 - Clean metal	54.80	43.84	54.80	59.18	59.20
#36 - Rusty metal	58.00	46.40	58.00	62.64	62.60
Metal finish, synthetic enamel, gloss, interior or exterior					
#37 - Off white	57.90	46.32	57.90	62.53	62.50
#38 - Colors (except orange/red)	57.95	46.36	57.95	62.59	62.60
Anti-graffiti stain eliminator					
#39 - Water base primer & sealer	40.55	32.44	40.55	43.79	43.80
#40 - Oil base primer & sealer	46.60	37.28	46.60	50.33	50.30
#41 - Polyurethane 2 part SYSTEM	148.25	118.60	148.25	160.11	160.10
Preparation:					
#42 - Caulking, per fluid ounce	0.38	0.30	0.38	0.41	0.41
Paint remover, per gallon					
#43 - Light duty	36.05	28.84	36.05	38.93	38.90
#44 - Heavy duty	44.50	35.60	44.50	48.06	48.10
#45 - Putty, per pound	6.55	5.24	6.55	7.07	7.10
#46 - Silica sand, per pound	0.55	0.44	0.55	0.59	0.59
#47 - Visqueen, 1.5 mil, 12' x 200' roll	43.85	35.08	43.85	47.36	47.40
#48 - Wood filler, per gallon	47.40	37.92	47.40	51.19	51.20

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)	17.55	14.04	17.55	18.95	19.00
#50 - Aluminum base paint	96.70	77.36	96.70	104.44	104.40
Epoxy coating, 2 part SYSTEM					
#51 - Clear	138.40	110.72	138.40	149.47	149.50
#52 - White	127.95	102.36	127.95	138.19	138.20
Heat resistant enamel					
#53 - 800 to 1200 degree range	127.35	101.88	127.35	137.54	137.50
#54 - 300 to 800 degree range	112.00	89.60	112.00	120.96	121.00
#55 - Industrial bonding & penetrating oil paint	50.30	40.24	50.30	54.32	54.30
Industrial enamel, oil base, high gloss					
#56 - Light colors	54.25	43.40	54.25	58.59	58.60
#57 - Dark (OSHA) colors	68.45	54.76	68.45	73.93	73.90
#58 - Industrial waterproofing	46.85	37.48	46.85	50.60	50.60
#59 - Vinyl coating (tanks)	127.65	102.12	127.65	137.86	137.90
Wallcovering:					
Ready-mix:					
#60 - Light-weight vinyl (gal)	11.60	9.28	11.60	12.53	12.50
#61 - Heavy weight vinyl (gal)	12.90	10.32	12.90	13.93	13.90
#62 - Cellulose, clear (gal)	13.70	10.96	13.70	14.80	14.80
#63 - Vinyl to vinyl (gal)	20.55	16.44	20.55	22.19	22.20
#64 - Powdered cellulose, 2 - 4 ounces	6.60	5.28	6.60	7.13	7.10
#65 - Powdered vinyl, 2 - 4 ounces	8.70	6.96	8.70	9.40	9.40
#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

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	37.80	26.46	33.08	35.73	35.70
	Undercoat (doors, casings and other paint grade wood)					
#3 -	Water base	33.55	23.49	29.36	31.71	31.70
#4 -	Oil base	39.65	27.76	34.70	37.48	37.50
	Flat latex (walls, ceilings & paint grade baseboard)					
#5 -	Water base latex paint	30.95	21.67	27.09	29.26	29.30
	Acoustic spray-on texture					
#6 -	Primer	25.00	17.50	21.88	23.63	23.60
#7 -	Finish	29.90	20.93	26.16	28.25	28.30
#8 -	Dripowder mixed (pound)	1.00	0.70	0.88	0.95	0.95
	Enamel (wet area walls & ceilings and openings)					
#9 -	Water base enamel	44.85	31.40	39.25	42.39	42.40
#10 -	Oil base enamel	55.35	38.75	48.44	52.32	52.30
	System Estimate (cabinets, bookshelves, molding, interior windows)					
#11a -	Wiping stain, oil base	56.60	39.62	49.53	53.49	53.50
#11b -	Sanding sealer, lacquer	43.55	30.49	38.11	41.16	41.20
#11c -	Lacquer, semi gloss	44.40	31.08	38.85	41.96	42.00
#11 -	Stain, seal & 2 coat lacquer SYSTEM					
	Average cost (11a + b + (2 x c))		33.07	41.34	44.65	44.70
#12 -	Shellac, clear	64.25	44.98	56.23	60.73	60.70
#13 -	Penetrating oil stain	51.25	35.88	44.85	48.44	48.40
#14 -	Penetrating stain wax (molding)	44.55	31.19	38.99	42.11	42.10
#15 -	Wax, per pound (floors)	16.30	11.41	14.26	15.40	15.40
#16 -	Glazing (mottling over enamel)	44.50	31.15	38.94	42.06	42.10
#17 -	Spray can, each (HVAC registers)	10.85	7.60	9.50	10.26	10.30
Exterior:						
	Solid body/color stain (beams, light valance, fascia, overhang, siding, plant-on trim, wood shelves)					
#18 -	Water base stain	42.60	29.82	37.28	40.26	40.30
#19 -	Oil base stain	53.90	37.73	47.16	50.93	50.90
	Semi-transparent stain (beams, siding, T & G ceiling)					
#20 -	Water base stain	42.85	30.00	37.50	40.50	40.50
#21 -	Oil base stain	50.50	35.35	44.19	47.73	47.70
#22 -	Polyurethane (exterior doors)	72.80	50.96	63.70	68.80	68.80
#23 -	Marine spar varnish, flat or gloss (exterior doors)					
	Interior or exterior	77.45	54.22	67.78	73.20	73.20

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	46.85	32.80	41.00	44.28	44.30
#25 - Oil base	54.10	37.87	47.34	51.13	51.10
Porch & deck enamel - interior or exterior					
#26 - Water base enamel	49.10	34.37	42.96	46.40	46.40
#27 - Oil base enamel	58.28	40.80	51.00	55.08	55.10
#28 - Epoxy, 1 part, water base	65.10	45.57	56.96	61.52	61.50
#29 - Epoxy, 2 part SYSTEM	96.25	67.38	84.23	90.97	91.00
System estimate (exterior windows)					
#30a - Wiping stain, oil base	49.95	34.97	43.71	47.21	47.20
#30b - Sanding sealer, varnish	54.00	37.80	47.25	51.03	51.00
#30c - Varnish, flat or gloss	78.55	54.99	68.74	74.24	74.20
#30 - Stain, seal & 1 coat varnish SYSTEM					
Average cost (30a + b + c))	42.59	53.24	57.50	57.50	
Masonry paint (masonry, concrete, plaster)					
#31 - Water base, flat or gloss	38.75	27.13	33.91	36.62	36.60
#32 - Oil base paint	58.00	40.60	50.75	54.81	54.80
#33 - Block filler	31.25	21.88	27.35	29.54	29.50
#34 - Waterproofing, clear hydro seal	36.55	25.59	31.99	34.55	34.60
Metal primer, rust inhibitor					
#35 - Clean metal	54.80	38.36	47.95	51.79	51.80
#36 - Rusty metal	58.00	40.60	50.75	54.81	54.80
Metal finish, synthetic enamel, gloss, interior or exterior					
#37 - Off white	57.90	40.53	50.66	54.71	54.70
#38 - Colors (except orange/red)	57.95	40.57	50.71	54.77	54.80
Anti-graffiti stain eliminator					
#39 - Water base primer & sealer	40.55	28.39	35.49	38.33	38.30
#40 - Oil base primer & sealer	46.60	32.62	40.78	44.04	44.00
#41 - Polyurethane 2 part SYSTEM	148.25	103.78	129.73	140.11	140.10
Preperation:					
#42 - Caulking, per fluid ounce	0.38	0.27	0.34	0.37	0.37
Paint remover, per gallon					
#43 - Light duty	36.05	25.24	31.55	34.07	34.10
#44 - Heavy duty	44.50	31.15	38.94	42.06	42.10
#45 - Putty, per pound	6.55	4.59	5.74	6.20	6.20
#46 - Silica sand, per pound	0.55	0.39	0.49	0.53	0.53
#47 - Visqueen, 1.5 mil, 12' x 200' roll	43.85	30.70	38.38	41.45	41.50
#48 - Wood filler, per gallon	47.40	33.18	41.48	44.80	44.80

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)	17.55	12.29	15.36	16.59	16.60
#50 - Aluminum base paint	96.70	67.69	84.61	91.38	91.40
Epoxy coating, 2 part system					
#51 - Clear	138.40	96.88	121.10	130.79	130.80
#52 - White	127.95	89.57	111.96	120.92	120.90
Heat resistant enamel					
#53 - 800 to 1200 degree range	127.35	89.15	111.44	120.36	120.40
#54 - 300 to 800 degree range	112.00	78.40	98.00	105.84	105.80
#55 - Industrial bonding & penetrating oil paint	50.30	35.21	44.01	47.53	47.50
Industrial enamel, oil base, high gloss					
#56 - Light colors	54.25	37.98	47.48	51.28	51.30
#57 - Dark (OSHA) colors	68.45	47.92	59.90	64.69	64.70
#58 - Industrial waterproofing	46.85	32.80	41.00	44.28	44.30
#59 - Vinyl coating (tanks)	127.65	89.36	111.70	120.64	120.60
Wallcovering:					
Ready-mix:					
#60 - Light-weight vinyl (gal)	11.60	8.12	10.15	10.96	11.00
#61 - Heavy weight vinyl (gal)	12.90	9.03	11.29	12.19	12.20
#62 - Cellulose, clear (gal)	13.70	9.59	11.99	12.95	13.00
#63 - Vinyl to vinyl (gal)	20.55	14.39	17.99	19.43	19.40
#64 - Powdered cellulose, 2 - 4 ounces	6.60	4.62	5.78	6.24	6.20
#65 - Powdered vinyl, 2 - 4 ounces	8.70	6.09	7.61	8.22	8.20
#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

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
Cabinets, paint grade, spray application									
Undercoat, water base (material #3)									
Spray 1 coat									
Slow	125	125	36.20	16.60	3.98	28.96	9.41	9.43	68.38
Medium	140	113	31.70	19.29	5.56	28.05	13.23	7.94	74.07
Fast	155	100	27.20	21.77	7.68	27.20	17.56	5.19	79.40
Undercoat, oil base (material #4)									
Spray 1 coat									
Slow	125	135	42.80	16.60	3.98	31.70	9.93	9.95	72.16
Medium	140	123	37.50	19.29	5.56	30.49	13.84	8.30	77.48
Fast	155	110	32.10	21.77	7.68	29.18	18.18	5.38	82.19
Split coat (1/2 undercoat + 1/2 enamel), water base (material #3 + #9)									
Spray each coat									
Slow	200	175	42.30	10.38	2.49	24.17	7.04	7.05	51.13
Medium	225	163	37.05	12.00	3.45	22.73	9.55	5.73	53.46
Fast	250	150	31.75	13.50	4.76	21.17	12.23	3.62	55.28
Split coat (1/2 undercoat + 1/2 enamel), oil base (material #4 + #10)									
Spray each coat									
Slow	200	175	51.30	10.38	2.49	29.31	8.01	8.03	58.22
Medium	225	163	44.90	12.00	3.45	27.55	10.76	6.45	60.21
Fast	250	150	38.45	13.50	4.76	25.63	13.61	4.03	61.53
Enamel, water base (material #9)									
Spray 1st finish coat									
Slow	185	150	48.40	11.22	2.70	32.27	8.77	8.79	63.75
Medium	210	138	42.40	12.86	3.70	30.72	11.83	7.10	66.21
Fast	235	125	36.30	14.36	5.09	29.04	15.03	4.45	67.97
Spray 2nd or additional finish coats									
Slow	200	175	48.40	10.38	2.49	27.66	7.70	7.72	55.95
Medium	225	163	42.40	12.00	3.45	26.01	10.37	6.22	58.05
Fast	250	150	36.30	13.50	4.76	24.20	13.17	3.89	59.52
Enamel, oil base (material #10)									
Spray 1st finish coat									
Slow	185	160	59.80	11.22	2.70	37.38	9.75	9.77	70.82
Medium	210	148	52.30	12.86	3.70	35.34	12.98	7.79	72.67
Fast	235	135	44.80	14.36	5.09	33.19	16.31	4.83	73.78
Spray 2nd or additional finish coats									
Slow	200	185	59.80	10.38	2.49	32.32	8.59	8.60	62.38
Medium	225	173	52.30	12.00	3.45	30.23	11.43	6.86	63.97
Fast	250	160	44.80	13.50	4.76	28.00	14.34	4.24	64.84

Cabinet estimates are based on overall dimensions (length times width) to 8 feet high and include painting the cabinet face, back of doors, stiles and rails. See Cabinet backs for painting the inside back wall of the cabinets. Use these figures to estimate paint grade kitchen cabinets. Use the Opening Count Method to estimate paint grade pullmans, vanities, bars or linen cabinets. For heights above 8 feet, apply the High Time Difficulty Factors to labor costs and the labor burden cost categories and add these figures to the total cost. Measurements are based on total area of cabinet faces. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Cabinets, stain grade									
Stain, seal & 2 coats lacquer system (7 step process)									
STEP 1: Sand & putty;									
Slow	125	--	--	16.60	3.98	--	3.91	3.92	28.41
Medium	150	--	--	18.00	5.21	--	5.80	3.48	32.49
Fast	175	--	--	19.29	6.78	--	8.09	2.39	36.55
STEP 2 & 3: Stain (material #11a) & wipe									
Brush 1 coat & wipe									
Slow	65	450	61.10	31.92	7.65	13.58	10.10	10.12	73.37
Medium	75	400	53.50	36.00	10.39	13.38	14.95	8.97	83.69
Fast	85	350	45.90	39.71	13.99	13.11	20.72	6.13	93.66
Spray 1 coat & wipe									
Slow	250	175	61.10	8.30	1.99	34.91	8.59	8.61	62.40
Medium	350	138	53.50	7.71	2.24	38.77	12.18	7.31	68.21
Fast	450	100	45.90	7.50	2.64	45.90	17.38	5.14	78.56
STEP 4: Sanding sealer (material #11b)									
Brush 1 coat									
Slow	110	450	47.00	18.86	4.53	10.44	6.43	6.44	46.70
Medium	120	425	41.20	22.50	6.49	9.69	9.67	5.80	54.15
Fast	130	400	35.30	25.96	9.15	8.83	13.62	4.03	61.59
Spray 1 coat									
Slow	330	175	47.00	6.29	1.51	26.86	6.59	6.60	47.85
Medium	430	138	41.20	6.28	1.83	29.86	9.49	5.69	53.15
Fast	530	100	35.30	6.37	2.26	35.30	13.62	4.03	61.58
STEP 5: Sand lightly									
Slow	200	--	--	10.38	2.49	--	2.45	2.45	17.77
Medium	250	--	--	10.80	3.12	--	3.48	2.09	19.49
Fast	300	--	--	11.25	3.95	--	4.72	1.40	21.32
STEP 6 & 7: Lacquer (material #11c), 2 coats									
Brush 1st coat									
Slow	120	375	48.00	17.29	4.14	12.80	6.51	6.52	47.26
Medium	165	350	42.00	16.36	4.73	12.00	8.27	4.96	46.32
Fast	215	325	36.00	15.70	5.53	11.08	10.02	2.96	45.29
Brush 2nd coat									
Slow	130	400	48.00	15.96	3.83	12.00	6.04	6.05	43.88
Medium	173	388	42.00	15.61	4.50	10.82	7.74	4.64	43.31
Fast	225	375	36.00	15.00	5.27	9.60	9.27	2.74	41.88
Spray 1st coat									
Slow	275	150	48.00	7.55	1.82	32.00	7.86	7.88	57.11
Medium	388	100	42.00	6.96	2.02	42.00	12.74	7.65	71.37
Fast	500	75	36.00	6.75	2.38	48.00	17.71	5.24	80.08

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
Spray 2nd coat									
Slow	350	200	48.00	5.93	1.43	24.00	5.96	5.97	43.29
Medium	475	163	42.00	5.68	1.66	25.77	8.27	4.96	46.34
Fast	600	125	36.00	5.63	2.00	28.80	11.29	3.34	51.06
Complete 7 step stain, seal & 2 coat lacquer system (material #11)									
Brush all coats									
Slow	20	125	51.00	103.75	24.90	40.80	32.20	32.26	233.91
Medium	25	113	44.70	108.00	31.20	39.56	44.69	26.82	250.27
Fast	30	100	38.30	112.50	39.68	38.30	59.06	17.47	267.01
Spray all coats									
Slow	40	40	51.00	51.88	12.45	127.50	36.45	36.52	264.80
Medium	50	30	44.70	54.00	15.60	149.00	54.65	32.79	306.04
Fast	60	21	38.30	56.25	19.87	182.38	80.13	23.70	362.33
Shellac, clear (material #12)									
Brush each coat									
Slow	175	525	69.40	11.86	2.83	13.22	6.98	4.19	39.08
Medium	200	513	60.70	13.50	3.90	11.83	9.06	2.68	40.97
Fast	225	500	52.10	15.00	5.27	10.42	9.52	2.82	43.03
Varnish, flat or gloss (material #30c)									
Brush each coat									
Slow	155	475	84.80	13.39	3.21	17.85	10.68	3.16	48.29
Medium	180	463	74.20	15.00	4.35	16.03	6.72	6.73	48.83
Fast	205	450	63.60	16.46	5.82	14.13	9.10	5.46	50.97
Penetrating stain wax (material #14) & polish									
Brush 1st coat									
Slow	125	575	48.10	16.60	3.98	8.37	8.97	2.65	40.57
Medium	150	538	42.10	18.00	5.21	7.83	5.90	5.91	42.85
Fast	175	500	36.10	19.29	6.78	7.22	8.33	5.00	46.62
Brush 2nd or additional coats									
Slow	150	600	48.10	13.83	3.33	8.02	7.80	2.31	35.29
Medium	175	575	42.10	15.43	4.44	7.32	8.44	2.50	38.13
Fast	200	550	36.10	16.88	5.95	6.56	5.59	5.60	40.58

Cabinet estimates are based on overall dimensions (length times width) to 8 feet high. Use these figures to estimate stain grade kitchen, bar, linen, pullman or vanity cabinets. For the stain, seal and lacquer process, the figures include finishing both sides of cabinet doors, stiles and rails with a fog coat of stain on shelves and the wall behind the cabinet (cabinet back). See Cabinet backs for painting the inside back wall of the cabinets. For heights above 8 feet, use the High Time Difficulty Factors on page 139. Measurements are based on total area of cabinet faces. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Ceiling panels, suspended, fiber panels in T-bar frames, brush application									
Flat latex, water base (material #5)									
Brush 1st coat									
Slow	80	260	33.40	25.94	6.22	12.85	8.55	8.57	62.13
Medium	110	230	29.30	24.55	7.08	12.74	11.10	6.66	62.13
Fast	140	200	25.10	24.11	8.49	12.55	14.00	4.14	63.29
Brush 2nd or additional coats									
Slow	130	300	33.40	15.96	3.83	11.13	5.87	5.89	42.68
Medium	150	275	29.30	18.00	5.21	10.65	8.46	5.08	47.40
Fast	170	250	25.10	19.85	7.00	10.04	11.44	3.38	51.71
Enamel, water base (material #9)									
Brush 1st coat									
Slow	65	260	48.40	31.92	7.65	18.62	11.06	11.08	80.33
Medium	100	230	42.40	27.00	7.80	18.43	13.31	7.98	74.52
Fast	125	200	36.30	27.00	9.53	18.15	16.95	5.01	76.64
Brush 2nd or additional coats									
Slow	115	300	48.40	18.04	4.35	16.13	7.32	7.33	53.17
Medium	135	275	42.40	20.00	5.79	15.42	10.30	6.18	57.69
Fast	155	250	36.30	21.77	7.68	14.52	13.63	4.03	61.63
Enamel, oil base (material #10)									
Brush 1st coat									
Slow	65	250	59.80	31.92	7.65	23.92	12.07	12.09	87.65
Medium	95	213	52.30	28.42	8.22	24.55	15.30	9.18	85.67
Fast	125	175	44.80	27.00	9.53	25.60	19.26	5.70	87.09
Brush 2nd or additional coats									
Slow	115	275	59.80	18.04	4.35	21.75	8.38	8.40	60.92
Medium	135	260	52.30	20.00	5.79	20.12	11.48	6.89	64.28
Fast	155	240	44.80	21.77	7.68	18.67	14.92	4.41	67.45

Ceiling panel estimates are based on overall dimensions (length times width) to 8 feet high. Do not make deductions for openings in the ceiling area that are under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

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	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
Ceiling panels, suspended, fiber panels in T-bar frame, roll application									
Flat latex, water base (material #5)									
Roll 1st coat									
Slow	150	270	33.40	13.83	3.33	12.37	5.61	5.62	40.76
Medium	215	235	29.30	12.56	3.62	12.47	7.17	4.30	40.12
Fast	280	200	25.10	12.05	4.25	12.55	8.94	2.65	40.44
Roll 2nd or additional coats									
Slow	225	280	33.40	9.22	2.20	11.93	4.44	4.45	32.24
Medium	288	260	29.30	9.38	2.70	11.27	5.84	3.50	32.69
Fast	350	240	25.10	9.64	3.42	10.46	7.29	2.16	32.97
Enamel, water base (material #9)									
Roll 1st coat									
Slow	135	250	48.40	15.37	3.70	19.36	7.30	7.32	53.05
Medium	200	220	42.40	13.50	3.90	19.27	9.17	5.50	51.34
Fast	265	190	36.30	12.74	4.47	19.11	11.27	3.33	50.92
Roll 2nd or additional finish coats									
Slow	210	280	48.40	9.88	2.37	17.29	5.61	5.62	40.77
Medium	273	260	42.40	9.89	2.85	16.31	7.27	4.36	40.68
Fast	335	240	36.30	10.07	3.58	15.13	8.91	2.64	40.33
Enamel, oil base (material #10)									
Roll 1st coat									
Slow	135	240	59.80	15.37	3.70	24.92	8.36	8.37	60.72
Medium	200	230	52.30	13.50	3.90	22.74	10.04	6.02	56.20
Fast	265	210	44.80	12.74	4.47	21.33	11.96	3.54	54.04
Roll 2nd or additional finish coats									
Slow	210	275	59.80	9.88	2.37	21.75	6.46	6.47	46.93
Medium	273	250	52.30	9.89	2.85	20.92	8.42	5.05	47.13
Fast	335	230	44.80	10.07	3.58	19.48	10.26	3.04	46.43

Ceiling panel estimates are based on overall dimensions (length times width) to 8 feet high. Do not make deductions for openings in the ceiling area that are under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Ceiling panels, suspended, fiber panels in T-bar frame, spray application									
Flat latex, water base (material #5)									
Spray 1st coat									
Slow	300	250	33.40	6.92	1.65	13.36	4.17	4.18	30.28
Medium	345	238	29.30	7.83	2.26	12.31	5.60	3.36	31.36
Fast	390	225	25.10	8.65	3.04	11.16	7.09	2.10	32.04
Spray 2nd or additional coats									
Slow	500	270	33.40	4.15	1.00	12.37	3.33	3.34	24.19
Medium	545	260	29.30	4.95	1.42	11.27	4.41	2.65	24.70
Fast	590	250	25.10	5.72	2.00	10.04	5.51	1.63	24.90
Enamel, water base (material #9)									
Spray 1st coat									
Slow	275	250	48.40	7.55	1.82	19.36	5.46	5.47	39.66
Medium	325	238	42.40	8.31	2.41	17.82	7.13	4.28	39.95
Fast	375	225	36.30	9.00	3.19	16.13	8.78	2.60	39.70
Spray 2nd or additional coats									
Slow	450	275	48.40	4.61	1.10	17.60	4.43	4.44	32.18
Medium	500	263	42.40	5.40	1.56	16.12	5.77	3.46	32.31
Fast	550	250	36.30	6.14	2.17	14.52	7.08	2.09	32.00
Enamel, oil base (material #10)									
Spray 1st coat									
Slow	275	240	59.80	7.55	1.82	24.92	6.51	6.53	47.33
Medium	325	220	52.30	8.31	2.41	23.77	8.62	5.17	48.28
Fast	375	200	44.80	9.00	3.19	22.40	10.72	3.17	48.48
Spray 2nd or additional coats									
Slow	450	250	59.80	4.61	1.10	23.92	5.63	5.64	40.90
Medium	500	238	52.30	5.40	1.56	21.97	7.23	4.34	40.50
Fast	550	225	44.80	6.14	2.17	19.91	8.75	2.59	39.56

Ceiling panel estimates are based on overall dimensions (length times width) to 8 feet high. Do not make deductions for openings in the ceiling area that are under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

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	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
Ceiling pans, metal, exterior enamel finish									
Enamel, water base (material #24)									
Brush each coat									
Slow	80	450	50.60	25.94	6.22	11.24	8.25	8.27	59.92
Medium	100	388	44.30	27.00	7.80	11.42	11.56	6.93	64.71
Fast	125	325	38.00	27.00	9.53	11.69	14.95	4.42	67.59
Enamel, oil base (material #25)									
Brush each coat									
Slow	80	400	58.40	25.94	6.22	14.60	8.89	8.91	64.56
Medium	103	338	51.10	26.21	7.58	15.12	12.23	7.34	68.48
Fast	125	275	43.80	27.00	9.53	15.93	16.26	4.81	73.53
Enamel, water base (material #24)									
Roll each coat									
Slow	175	425	50.60	11.86	2.83	11.91	5.06	5.07	36.73
Medium	200	368	44.30	13.50	3.90	12.04	7.36	4.42	41.22
Fast	225	300	38.00	15.00	5.27	12.67	10.22	3.02	46.18
Enamel, oil base (material #25)									
Roll each coat									
Slow	175	375	58.40	11.86	2.83	15.57	5.75	5.76	41.77
Medium	200	313	51.10	13.50	3.90	16.33	8.43	5.06	47.22
Fast	225	250	43.80	15.00	5.27	17.52	11.72	3.47	52.98
Enamel, water base (material #24)									
Spray each coat									
Slow	550	380	50.60	3.77	.91	13.32	3.42	3.43	24.85
Medium	600	370	44.30	4.50	1.31	11.97	4.44	2.67	24.89
Fast	650	260	38.00	5.19	1.84	14.62	6.71	1.98	30.34
Enamel, oil base (material #25)									
Spray each coat									
Slow	550	330	58.40	3.77	.91	17.70	4.25	4.26	30.89
Medium	600	270	51.10	4.50	1.31	18.93	6.18	3.71	34.63
Fast	650	210	43.80	5.19	1.84	20.86	8.64	2.56	39.09

Ceiling panel estimates are based on overall dimensions (length times width) to 8 feet high. Do not make deductions for openings in the ceiling area that are under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
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Ceilings, acoustic spray-on texture on gypsum drywall

Acoustic spray-on texture, primer (material #6)

Spray prime coat

Slow	250	100	27.00	8.30	1.99	27.00	7.09	7.10	51.48
Medium	300	90	23.60	9.00	2.59	26.22	9.46	5.67	52.94
Fast	350	80	20.30	9.64	3.42	25.38	11.91	3.52	53.87

Acoustic spray-on texture, finish (material #7)

Spray 1st finish coat

Slow	400	180	32.30	5.19	1.24	17.94	4.63	4.64	33.64
Medium	450	170	28.30	6.00	1.73	16.65	6.10	3.66	34.14
Fast	500	160	24.20	6.75	2.38	15.13	7.52	2.22	34.00

Spray 2nd or additional finish coats

Slow	500	200	32.30	4.15	1.00	16.15	4.05	4.06	29.41
Medium	550	188	28.30	4.91	1.42	15.05	5.35	3.21	29.94
Fast	600	175	24.20	5.63	2.00	13.83	6.65	1.97	30.08

Ceiling texture estimates are based on overall dimensions (length times width) to 8 feet high. Do not make deductions for openings in the ceiling area that are under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

	Labor SF per manhour	Material coverage SF/pound	Material cost per pound	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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Ceilings, stipple finish texture paint, light, on drywall

Stipple finish texture paint, Drypowder mix, light coverage (material #8)

Spray each coat

Slow	225	10.0	1.08	9.22	2.20	10.80	4.22	4.23	30.67
Medium	250	7.5	.95	10.80	3.12	12.67	6.65	3.99	37.23
Fast	275	5.0	.81	12.27	4.35	16.20	10.17	3.01	46.00

Estimates for stipple finish texture paint are based on overall dimensions (length times width) to 8 feet high. Do not make deductions for openings in the ceiling area that are under 100 square feet. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

Part II

Preparation **COSTS**

SAMPLE

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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Acid wash gutters & downspouts

Acid wash, muriatic acid (material #49)

Brush or mitt 1 coat

Slow	80	450	19.00	25.94	6.22	4.22	6.91	6.93	50.22
Medium	95	425	16.60	28.42	8.22	3.91	10.14	6.08	56.77
Fast	110	400	14.20	30.68	10.82	3.55	13.97	4.13	63.15

For heights above one story, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
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Airblast, compressed air

Average production

Slow	150	--	--	13.83	3.33	--	3.26	3.27	23.69
Medium	175	--	--	15.43	4.44	--	4.97	2.98	27.82
Fast	200	--	--	16.88	5.95	--	7.08	2.09	32.00

All widths less than 12", consider as 1 square foot per linear foot. Add equipment rental costs with Overhead and Profit. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Burn off paint									
Exterior:									
Exterior trim									
Slow	15	--	--	138.33	33.21	--	32.59	32.66	236.79
Medium	20	--	--	135.00	39.00	--	43.51	26.10	243.61
Fast	25	--	--	135.00	47.64	--	56.62	16.75	256.01
Plain surfaces									
Slow	30	--	--	69.17	16.59	--	16.30	16.33	118.39
Medium	40	--	--	67.50	19.50	--	21.75	13.05	121.80
Fast	50	--	--	67.50	23.82	--	28.31	8.37	128.00
Beveled wood siding									
Slow	20	--	--	103.75	24.90	--	24.44	24.49	177.58
Medium	30	--	--	90.00	25.99	--	29.00	17.40	162.39
Fast	40	--	--	84.38	29.77	--	35.39	10.47	160.01
Interior:									
Interior trim									
Slow	10	--	--	207.50	49.80	--	48.89	48.99	355.18
Medium	15	--	--	180.00	52.01	--	58.01	34.80	324.82
Fast	20	--	--	168.75	59.55	--	70.78	20.94	320.02
Plain surfaces									
Slow	15	--	--	138.33	33.21	--	32.59	32.66	236.79
Medium	25	--	--	108.00	31.20	--	34.80	20.88	194.88
Fast	35	--	--	96.43	34.02	--	40.45	11.96	182.86

All widths less than 12", consider as 1 square foot per linear foot. Note: Because surfaces and the material being removed vary widely, it's best to quote prices for burning-off existing finishes on a Time and Material or Cost Plus Fee basis at a preset hourly rate. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor LF per manhour	Material LF/fluid oz ounce	Material cost per ounce	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
Caulk									
1/8" gap (material #42)									
Slow	60	14	.41	34.58	8.31	2.93	8.70	8.72	63.24
Medium	65	13	.37	41.54	11.98	2.85	14.10	8.46	78.93
Fast	70	12	.31	48.21	17.04	2.58	21.02	6.22	95.07
1/4" gap (material #42)									
Slow	50	3.5	.41	41.50	9.96	11.71	12.00	12.03	87.20
Medium	55	3.3	.37	49.09	14.18	11.21	18.62	11.17	104.27
Fast	60	3.0	.31	56.25	19.87	10.33	26.80	7.93	121.18
3/8" gap (material #42)									
Slow	40	1.5	.41	51.88	12.45	27.33	17.42	17.45	126.53
Medium	45	1.4	.37	60.00	17.33	26.43	25.94	15.57	145.27
Fast	50	1.3	.31	67.50	23.82	23.85	35.71	10.56	161.44
1/2" gap (material #42)									
Slow	33	1.0	.41	62.88	15.08	41.00	22.60	22.65	164.21
Medium	38	0.9	.37	71.05	20.54	41.11	33.17	19.90	185.77
Fast	43	0.8	.31	78.49	27.72	38.75	44.93	13.29	203.18

Caulking that's part of normal surface preparation is included in the painting cost tables. When extra caulking is required, use this cost guide. It's based on oil or latex base, silicone or urethane caulk in 10 ounce tubes. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Cut cracks									
Varnish or hard oil and repair cracks									
Slow	120	--	--	17.29	4.14	--	4.07	4.08	29.58
Medium	130	--	--	20.77	5.99	--	6.69	4.02	37.47
Fast	140	--	--	24.11	8.49	--	10.11	2.99	45.70
Gloss painted walls and fix cracks									
Slow	125	--	--	16.60	3.98	--	3.91	3.92	28.41
Medium	135	--	--	20.00	5.79	--	6.45	3.87	36.11
Fast	145	--	--	23.28	8.23	--	9.77	2.89	44.17

All widths less than 12", consider as 1 square foot per linear foot. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
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Fill wood floors

Fill and wipe wood floors (material #48)

Slow	45	155	51.20	46.11	11.06	33.03	17.14	17.18	124.52
Medium	60	145	44.80	45.00	13.01	30.90	22.23	13.34	124.48
Fast	75	135	38.40	45.00	15.86	28.44	27.69	8.19	125.18

All widths less than 12", consider as 1 square foot per linear foot. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

	Labor SF per manhour	Material coverage SF/pound	Material cost per pound	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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Putty application

Good condition, 1 coat (material #45)

Slow	60	150	7.10	34.58	8.31	4.73	9.05	9.07	65.74
Medium	90	135	6.20	30.00	8.66	4.59	10.82	6.49	60.56
Fast	120	120	5.30	28.13	9.90	4.42	13.17	3.90	59.52

Average condition, 1 coat (material #45)

Slow	35	90	7.10	59.29	14.22	7.89	15.47	15.50	112.37
Medium	65	75	6.20	41.54	11.98	8.27	15.46	9.27	86.52
Fast	95	60	5.30	35.53	12.55	8.83	17.64	5.22	79.77

Poor condition, 1 coat (material #45)

Slow	15	40	7.10	138.33	33.21	17.75	35.96	36.04	261.29
Medium	30	30	6.20	90.00	25.99	20.67	34.17	20.50	191.33
Fast	45	20	5.30	75.00	26.46	26.50	39.67	11.74	179.37

These figures apply to either spackle or Swedish putty. All widths less than 12", consider as 1 square foot per linear foot. For heights above 8 feet, use the High Time Difficulty Factors on page 139. For flat trim or sash: Estimate 1 linear foot of trim as 1 square foot of surface. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
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Sand, medium (before first coat)

Interior flatwall areas

Slow	275	--	--	7.55	1.82	--	2.34	1.87	13.58
Medium	300	--	--	9.00	2.59	--	2.90	1.74	16.23
Fast	325	--	--	10.38	3.68	--	4.35	1.29	19.70

Interior enamel areas

Slow	250	--	--	8.30	1.99	--	1.96	1.96	14.21
Medium	275	--	--	9.82	2.85	--	3.17	1.90	17.74
Fast	300	--	--	11.25	3.95	--	4.72	1.40	21.32

All widths less than 12", consider as 1 square foot per linear foot. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Sand & putty (before second coat)									
Interior flatwall areas									
Slow	190	--	--	10.92	2.61	--	2.57	2.58	18.68
Medium	200	--	--	13.50	3.90	--	4.35	2.61	24.36
Fast	210	--	--	16.07	5.66	--	6.74	1.99	30.46
Interior enamel areas									
Slow	110	--	--	18.86	4.53	--	4.44	4.45	32.28
Medium	125	--	--	21.60	6.24	--	6.96	4.18	38.98
Fast	140	--	--	24.11	8.49	--	10.11	2.99	45.70
Exterior siding & trim - plain									
Slow	180	--	--	11.53	2.78	--	2.72	2.72	19.75
Medium	200	--	--	13.50	3.90	--	4.35	2.61	24.36
Fast	220	--	--	15.34	5.44	--	6.44	1.90	29.12
Exterior trim only									
Slow	100	--	--	20.75	4.98	--	4.89	4.90	35.52
Medium	110	--	--	24.55	7.08	--	7.91	4.75	44.29
Fast	120	--	--	28.13	9.90	--	11.80	3.49	53.32
Bookshelves									
Slow	100	--	--	20.75	4.98	--	4.89	4.90	35.52
Medium	125	--	--	21.60	6.24	--	6.96	4.18	38.98
Fast	150	--	--	22.50	7.96	--	9.44	2.79	42.69
Cabinets									
Slow	125	--	--	16.60	3.98	--	3.91	3.92	28.41
Medium	150	--	--	18.00	5.21	--	5.80	3.48	32.49
Fast	175	--	--	19.29	6.78	--	8.09	2.39	36.55

All trim which is less than 12" wide, consider to be 12" wide. For heights above 8 feet, use the High Time Difficulty Factors on page 139. High grade work - Use the manhours equal to 1 coat of paint. For medium grade work - Use half (50%) of the manhours for 1 coat of paint. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

Preparation 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
Sand, light (before third coat)									
Interior flatwall areas									
Slow	335	--	--	6.19	1.50	--	1.46	1.46	10.61
Medium	345	--	--	7.83	2.26	--	2.52	1.51	14.12
Fast	355	--	--	9.51	3.37	--	3.99	1.18	18.05
Interior enamel areas									
Slow	130	--	--	15.96	3.83	--	3.76	3.77	27.32
Medium	140	--	--	19.29	5.56	--	6.22	3.73	34.80
Fast	150	--	--	22.50	7.96	--	9.44	2.79	42.69
Exterior siding & trim - plain									
Slow	250	--	--	8.30	1.99	--	1.96	1.96	14.21
Medium	275	--	--	9.82	2.85	--	3.17	1.90	17.74
Fast	300	--	--	11.25	3.95	--	4.72	1.40	21.32
Exterior trim only									
Slow	150	--	--	13.83	3.33	--	3.26	3.27	23.69
Medium	175	--	--	15.43	4.44	--	4.97	2.98	27.82
Fast	200	--	--	16.88	5.95	--	7.08	2.09	32.00
Bookshelves									
Slow	175	--	--	11.86	2.83	--	2.79	2.80	20.28
Medium	225	--	--	12.00	3.45	--	3.87	2.32	21.64
Fast	275	--	--	12.27	4.35	--	5.15	1.52	23.29
Cabinets									
Slow	200	--	--	10.38	2.49	--	2.45	2.45	17.77
Medium	250	--	--	10.80	3.12	--	3.48	2.09	19.49
Fast	300	--	--	11.25	3.95	--	4.72	1.40	21.32

All widths less than 12", consider 1 square foot per linear foot. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. 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
Sand, extra fine, flat surfaces, varnish									
Sand or steel wool									
Slow	50	--	--	41.50	9.96	--	9.78	9.80	71.04
Medium	88	--	--	30.68	8.85	--	9.89	5.93	55.35
Fast	125	--	--	27.00	9.53	--	11.32	3.35	51.20

All widths less than 12", consider as 1 square foot per linear foot. For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

Sandblast, general

Sandblasting production rates may vary widely. Use the following figures as a reference for estimating and to establish performance data for your company. The abrasive material used in sandblasting is usually white silica sand although slags have recently gained in popularity. Material consumption varies with several factors:

- 1) Type of finish required
- 2) Condition of the surface
- 3) Quality of abrasive material (sharpness, cleanliness and hardness)
- 4) Nozzle size
- 5) Equipment arrangement and placement
- 6) Operator skill

All material consumption values are based on three uses of a 25 to 35 mesh white silica sand abrasive at a cost of \$220 to \$280 per ton. (Check the current price in your area.) Note: See the Structural Steel Conversion table at Figure 23 on pages 391 through 399 for converting linear feet or tons of structural steel to square feet.

SAMPLE

	Labor SF per manhour	Material coverage pounds/SF	Material cost per pound	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
Sandblast, brush-off blast									
Surface condition basis - large projects & surface areas (material #46)									
Remove cement base paint									
Slow	150	2.0	.59	13.83	3.33	118.00	25.68	25.73	186.57
Medium	175	2.5	.53	15.43	4.44	132.50	38.10	22.86	213.33
Fast	200	3.0	.44	16.88	5.95	132.00	48.00	14.20	217.03
Remove oil or latex base paint									
Slow	100	3.0	.59	20.75	4.98	177.00	38.52	38.60	279.85
Medium	125	3.5	.53	21.60	6.24	185.50	53.34	32.00	298.68
Fast	150	4.0	.44	22.50	7.96	176.00	64.00	18.93	289.39
Surface area basis - large projects & surface areas (material #46)									
Pipe up to 12" O/D									
Slow	125	4.0	.59	16.60	3.98	236.00	48.75	48.85	354.18
Medium	150	4.5	.53	18.00	5.21	238.50	65.43	39.26	366.40
Fast	175	5.0	.44	19.29	6.78	220.00	76.29	22.57	344.93
Structural steel									
Sizes up to 2 SF/LF									
Slow	150	4.0	.59	13.83	3.33	236.00	48.10	48.20	349.46
Medium	175	4.5	.53	15.43	4.44	238.50	64.60	38.76	361.73
Fast	200	5.0	.44	16.88	5.95	220.00	75.28	22.27	340.38
Sizes from 2 to 5 SF/LF									
Slow	200	3.0	.59	10.38	2.49	177.00	36.08	36.15	262.10
Medium	225	3.5	.53	12.00	3.45	185.50	50.24	30.15	281.34
Fast	250	4.0	.44	13.50	4.76	176.00	60.22	17.81	272.29
Sizes over 5 SF/LF									
Slow	250	2.0	.59	8.30	1.99	118.00	24.38	24.43	177.10
Medium	275	3.0	.53	9.82	2.85	159.00	42.92	25.75	240.34
Fast	300	4.0	.44	11.25	3.95	176.00	59.28	17.54	268.02
Tanks and vessels									
Sizes up to 12'0" O/D									
Slow	200	3.0	.59	10.38	2.49	177.00	36.08	36.15	262.10
Medium	225	3.5	.53	12.00	3.45	185.50	50.24	30.15	281.34
Fast	250	4.0	.44	13.50	4.76	176.00	60.22	17.81	272.29
Sizes over 12'0" O/D									
Slow	250	2.0	.59	8.30	1.99	118.00	24.38	24.43	177.10
Medium	275	3.0	.53	9.82	2.85	159.00	42.92	25.75	240.34
Fast	300	4.0	.44	11.25	3.95	176.00	59.28	17.54	268.02

For heights above 8 feet, use the High Time Difficulty Factors on page 139. "Slow" work is based on an hourly wage of \$20.75, "Medium" work on an hourly wage of \$27.00, and "Fast" work on an hourly wage of \$33.75. Other qualifications that apply to this table are on page 9.

National Painting Cost Estimator

	Labor SF per manhour	Material coverage pounds/SF	Material cost per pound	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
Sandblast, commercial blast (67% white)									
Surface condition basis - large projects & surface areas (material #46)									
Loose mill scale & fine powder rust									
Slow	150	4.0	.59	13.83	3.33	236.00	48.10	48.20	349.46
Medium	175	4.5	.53	15.43	4.44	238.50	64.60	38.76	361.73
Fast	200	5.0	.44	16.88	5.95	220.00	75.28	22.27	340.38
Tight mill scale & little or no rust									
Slow	125	5.0	.59	16.60	3.98	295.00	59.96	60.09	435.63
Medium	150	5.5	.53	18.00	5.21	291.50	78.68	47.21	440.60
Fast	175	6.0	.44	19.29	6.78	264.00	89.93	26.60	406.60
Hard scale, blistered, rusty surface									
Slow	75	6.0	.59	27.67	6.63	354.00	73.78	73.93	536.01
Medium	100	7.0	.53	27.00	7.80	371.00	101.45	60.87	568.12
Fast	125	8.0	.44	27.00	9.53	352.00	120.44	35.63	544.60
Rust nodules and pitted surface									
Slow	50	8.0	.59	41.50	9.96	472.00	99.46	99.67	722.59
Medium	60	9.5	.53	45.00	13.01	503.50	140.38	84.23	786.12
Fast	70	11.0	.44	48.21	17.04	484.00	170.26	50.36	769.87
Surface area basis - large projects & surface areas (material #46)									
Pipe up to 12" O/D									
Slow	45	5.0	.59	46.11	11.06	295.00	66.91	67.05	486.13
Medium	60	6.0	.53	45.00	13.01	318.00	94.00	56.40	526.41
Fast	75	7.0	.44	45.00	15.86	308.00	114.36	33.83	517.05
Structural steel									
Sizes up to 2 SF/LF									
Slow	70	5.0	.59	29.64	7.13	295.00	63.03	63.16	457.96
Medium	85	6.0	.53	31.76	9.16	318.00	89.74	53.84	502.50
Fast	100	7.0	.44	33.75	11.91	308.00	109.63	32.43	495.72
Sizes from 2 to 5 SF/LF									
Slow	80	5.0	.59	25.94	6.22	295.00	62.16	62.29	451.61
Medium	95	5.5	.53	28.42	8.22	291.50	82.03	49.22	459.39
Fast	110	6.0	.44	30.68	10.82	264.00	94.71	28.02	428.23
Sizes over 5 SF/LF									
Slow	85	5.0	.59	24.41	5.85	295.00	61.80	61.93	448.99
Medium	100	5.5	.53	27.00	7.80	291.50	81.58	48.95	456.83
Fast	115	6.0	.44	29.35	10.37	264.00	94.15	27.85	425.72

Part IV

Wallcovering Costs

SAMPLE

	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	12.50
Medium	7.5	18.8	11.00
Fast	7.0	17.5	9.40
Heavy weight vinyl (material #61)			
Slow	6.0	15.0	13.90
Medium	5.5	13.8	12.20
Fast	5.0	12.5	10.50
Cellulose (material #62)			
Slow	8.0	20.0	14.80
Medium	7.0	17.5	13.00
Fast	6.0	15.0	11.10
Vinyl to vinyl (material #63)			
Slow	7.0	17.5	22.20
Medium	6.5	16.3	19.40
Fast	6.0	15.0	16.60
Powdered cellulose (material #64)			
Slow	12.0	30.0	7.10
Medium	11.0	27.5	6.20
Fast	10.0	25.0	5.40
Powdered vinyl (material #65)			
Slow	12.0	30.0	9.40
Medium	11.0	27.5	8.20
Fast	10.0	25.0	7.10
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	12.50	5.79	1.39	4.55	2.23	2.23	16.19
Medium	375	250	11.00	7.07	2.04	4.40	3.38	2.03	18.92
Fast	400	225	9.40	8.31	2.93	4.18	4.78	1.41	21.61
Heavy weight vinyl (material #61)									
Slow	275	200	13.90	7.36	1.77	6.95	3.06	3.06	22.20
Medium	300	175	12.20	8.83	2.55	6.97	4.59	2.75	25.69
Fast	325	150	10.50	10.23	3.61	7.00	6.46	1.91	29.21
Cellulose (material #62)									
Slow	325	250	14.80	6.23	1.50	5.92	2.59	2.60	18.84
Medium	350	225	13.00	7.57	2.19	5.78	3.89	2.33	21.76
Fast	375	200	11.10	8.87	3.13	5.55	5.44	1.61	24.60
Vinyl to vinyl (material #63)									
Slow	300	225	22.20	6.75	1.62	9.87	3.47	3.47	25.18
Medium	325	200	19.40	8.15	2.36	9.70	5.05	3.03	28.29
Fast	350	175	16.60	9.50	3.35	9.49	6.93	2.05	31.32
Powdered cellulose (material #64)									
Slow	425	400	7.10	4.76	1.14	1.78	1.46	1.46	10.60
Medium	450	370	6.20	5.89	1.70	1.68	2.32	1.39	12.98
Fast	475	335	5.40	7.00	2.47	1.61	3.43	1.02	15.53
Powdered vinyl (material #65)									
Slow	425	400	9.40	4.76	1.14	2.35	1.57	1.57	11.39
Medium	450	370	8.20	5.89	1.70	2.22	2.45	1.47	13.73
Fast	475	335	7.10	7.00	2.47	2.12	3.59	1.06	16.24
Powdered wheat paste (material #66)									
Slow	450	425	6.90	4.50	1.08	1.62	1.37	1.37	9.94
Medium	475	400	6.10	5.58	1.61	1.53	2.18	1.31	12.21
Fast	500	375	5.20	6.65	2.35	1.39	3.22	.95	14.56

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 \$20.25, "Medium" work on an hourly rate of \$26.50, and "Fast" work on an hourly rate of \$33.25.

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	--	95.29	22.87	22.45	22.50	163.11	16.31
Medium	19	--	111.58	32.25	35.96	21.57	201.36	20.14
Fast	21	--	126.67	44.71	53.13	15.72	240.23	24.02

Ceilings

Slow	15	--	108.00	25.92	25.44	25.50	184.86	18.49
Medium	17	--	124.71	36.04	40.19	24.11	225.05	22.51
Fast	19	--	140.00	49.42	58.72	17.37	265.51	26.55

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 \$20.25, "Medium" work on an hourly wage of \$26.50, and "Fast" work on an hourly wage of \$33.25.

	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	--	231.43	55.54	54.52	54.64	396.13	39.61
Medium	9	--	235.56	68.08	75.91	45.55	425.10	42.51
Fast	11	--	241.82	85.36	101.43	30.00	458.61	45.86

Ceilings

Slow	6	--	270.00	64.80	63.61	63.75	462.16	46.22
Medium	8	--	265.00	76.59	85.40	51.24	478.23	47.82
Fast	10	--	266.00	93.90	111.57	33.00	504.47	50.45

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 \$20.25, "Medium" work on an hourly wage of \$26.50, and "Fast" work on an hourly wage of \$33.25.

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

Medium size rooms (10 x 10 range)

Slow	140	--	13.75	3.30	3.24	3.25	23.54	.24
Medium	158	--	15.82	4.57	3.87	3.88	28.14	.28
Fast	175	--	17.86	6.30	4.59	4.60	33.35	.33

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 \$19.25, "Medium" work on an hourly wage of \$25.00, and "Fast" work on an hourly wage of \$31.25.

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

Medium size rooms (bedrooms, dining rooms)

Slow	100	--	20.25	4.86	4.77	4.78	34.66	.35
Medium	113	--	23.45	6.78	7.56	4.53	42.32	.42
Fast	125	--	26.60	9.39	11.16	3.30	50.45	.50

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 \$20.25, "Medium" work on an hourly wage of \$26.50, and "Fast" work on an hourly wage 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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Flexible wood sheet and veneer

Wood veneer flexwood (residential or commercial)

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

Slow	14	--	141.07	33.86	33.24	33.31	241.48	2.41
Medium	20	--	128.75	37.21	41.49	24.89	232.34	2.32
Fast	26	--	124.04	43.79	52.03	15.39	235.25	2.35

Flexi-wall systems (residential or commercial)

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

Slow	12	--	164.58	39.50	38.78	38.86	281.72	2.82
Medium	18	--	143.06	41.34	46.10	27.66	258.16	2.58
Fast	24	--	134.38	47.44	56.36	16.67	254.85	2.55

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 \$19.75, "Medium" work on an hourly rate of \$25.75, and "Fast" work on an hourly rate of \$32.25.

	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	--	20.25	4.86	7.78	2.30	35.19	.35
Medium	125	--	21.20	6.13	8.47	2.51	38.31	.38
Fast	150	--	22.17	7.83	9.30	2.75	42.05	.42

Putty cracks, sand and wash

Slow	120	--	16.88	4.05	6.49	1.92	29.34	.29
Medium	135	--	19.63	5.67	7.84	2.32	35.46	.35
Fast	150	--	22.17	7.83	9.30	2.75	42.05	.42

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 \$20.25, "Medium" work on an hourly rate of \$26.50, and "Fast" work on an hourly rate of \$33.25.

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	--	38.50	9.24	9.07	9.09	65.90	6.59
Medium	45	--	44.44	12.84	14.32	8.59	80.19	8.02
Fast	50	--	50.00	17.65	20.97	6.20	94.82	9.48
Ceilings								
Slow	33	--	46.67	11.20	11.00	11.02	79.89	7.99
Medium	38	--	52.63	15.21	16.96	10.18	94.98	9.50
Fast	43	--	58.14	20.52	24.38	7.21	110.25	11.03
Small rooms (restrooms, utility rooms)								
Walls								
Slow	42	--	36.67	8.80	8.64	8.66	62.77	6.28
Medium	50	--	40.00	11.56	12.89	7.73	72.18	7.22
Fast	55	--	45.45	16.04	19.06	5.64	86.19	8.62
Ceilings								
Slow	38	--	40.53	9.73	9.55	9.57	69.38	6.94
Medium	46	--	43.48	12.57	14.01	8.41	78.47	7.85
Fast	51	--	49.02	17.30	20.56	6.08	92.96	9.30
Medium rooms (offices)								
Walls								
Slow	60	--	25.67	6.16	6.05	6.06	43.94	4.39
Medium	75	--	26.67	7.71	8.60	5.16	48.14	4.81
Fast	90	--	27.78	9.81	11.65	3.45	52.69	5.27
Ceilings								
Slow	56	--	27.50	6.60	6.48	6.49	47.07	4.71
Medium	69	--	28.99	8.38	9.34	5.61	52.32	5.23
Fast	81	--	30.86	10.89	12.94	3.83	58.52	5.85
Large rooms (conference rooms)								
Walls								
Slow	76	--	20.26	4.86	4.77	4.78	34.67	3.47
Medium	89	--	22.47	6.49	7.24	4.34	40.54	4.05
Fast	102	--	24.51	8.65	10.28	3.04	46.48	4.65
Ceilings								
Slow	66	--	23.33	5.60	5.50	5.51	39.94	3.99
Medium	79	--	25.32	7.32	8.16	4.90	45.70	4.57
Fast	91	--	27.47	9.70	11.52	3.41	52.10	5.21

	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	--	17.30	4.15	4.08	4.08	29.61	2.96
Medium	102	--	19.61	5.67	6.32	3.79	35.39	3.54
Fast	114	--	21.93	7.74	9.20	2.72	41.59	4.16
Ceilings								
Slow	76	--	20.26	4.86	4.77	4.78	34.67	3.47
Medium	89	--	22.47	6.49	7.24	4.34	40.54	4.05
Fast	102	--	24.51	8.65	10.28	3.04	46.48	4.65
Paper-backed vinyl on medium room walls								
Bedrooms, dining rooms								
Slow	43	--	35.81	8.59	8.44	8.45	61.29	6.13
Medium	53	--	37.74	10.91	12.16	7.30	68.11	6.81
Fast	64	--	39.06	13.79	16.38	4.85	74.08	7.41
Cork wallcovering on medium room walls								
Bedrooms, dining rooms								
Slow	43	--	35.81	8.59	8.44	8.45	61.29	6.13
Medium	53	--	37.74	10.91	12.16	7.30	68.11	6.81
Fast	64	--	39.06	13.79	16.38	4.85	74.08	7.41

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 \$19.25, "Medium" work on an hourly wage of \$25.00, and "Fast" work on an hourly wage of \$31.25.

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	--	162.00	38.88	38.17	38.25	277.30	27.73
Medium	11	--	192.73	55.70	62.11	37.26	347.80	34.78
Fast	12	--	221.67	78.25	92.98	27.50	420.40	42.04
Ceilings								
Slow	7	--	231.43	55.54	54.52	54.64	396.13	39.61
Medium	8	--	265.00	76.59	85.40	51.24	478.23	47.82
Fast	9	--	295.56	104.33	123.97	36.67	560.53	56.05
Small rooms (baths, utility rooms)								
Walls								
Slow	11	--	147.27	35.34	34.70	34.77	252.08	25.21
Medium	12	--	176.67	51.06	56.93	34.16	318.82	31.88
Fast	13	--	204.62	72.23	85.82	25.39	388.06	38.81
Ceilings								
Slow	9	--	180.00	43.20	42.41	42.50	308.11	30.81
Medium	10	--	212.00	61.27	68.32	40.99	382.58	38.26
Fast	11	--	241.82	85.36	101.43	30.00	458.61	45.86
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	17	--	95.29	22.87	22.45	22.50	163.11	16.31
Medium	19	--	111.58	32.25	35.96	21.57	201.36	20.14
Fast	21	--	126.67	44.71	53.13	15.72	240.23	24.02
Ceilings								
Slow	15	--	108.00	25.92	25.44	25.50	184.86	18.49
Medium	17	--	124.71	36.04	40.19	24.11	225.05	22.51
Fast	19	--	140.00	49.42	58.72	17.37	265.51	26.55
Large rooms (living rooms)								
Walls								
Slow	20	--	81.00	19.44	19.08	19.12	138.64	13.86
Medium	23	--	92.17	26.64	29.70	17.82	166.33	16.63
Fast	26	--	102.31	36.12	42.91	12.69	194.03	19.40
Ceilings								
Slow	18	--	90.00	21.60	21.20	21.25	154.05	15.41
Medium	20	--	106.00	30.63	34.16	20.49	191.28	19.13
Fast	22	--	120.91	42.68	50.71	15.00	229.30	22.93

	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
Large wall areas (corridors, long hallways)								
Walls								
Slow	24	--	67.50	16.20	15.90	15.94	115.54	11.55
Medium	27	--	78.52	22.69	25.30	15.18	141.69	14.17
Fast	30	--	88.67	31.30	37.19	11.00	168.16	16.82
Ceilings								
Slow	21	--	77.14	18.51	18.17	18.21	132.03	13.20
Medium	23	--	92.17	26.64	29.70	17.82	166.33	16.63
Fast	25	--	106.40	37.56	44.63	13.20	201.79	20.18
Paper-backed vinyl on medium room walls								
Bedrooms, dining rooms								
Slow	8	--	202.50	48.60	47.71	47.81	346.62	34.66
Medium	10	--	212.00	61.27	68.32	40.99	382.58	38.26
Fast	12	--	221.67	78.25	92.98	27.50	420.40	42.04
Cork wallcovering on medium room walls								
Bedrooms, dining rooms								
Slow	8	--	202.50	48.60	47.71	47.81	346.62	34.66
Medium	10	--	212.00	61.27	68.32	40.99	382.58	38.26
Fast	12	--	221.67	78.25	92.98	27.50	420.40	42.04

The table above assumes that residential rolls are hand 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 \$20.25, "Medium" work on an hourly wage of \$26.50, and "Fast" work on an hourly wage of \$33.25. Add for ready-mix paste.

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
Wall fabric, commercial, machine pasted, yards per day, 48" to 54" width								
Coated fabric								
Cut-up areas (stair halls, landing areas)								
Walls								
Slow	58	--	26.55	6.37	6.25	6.27	45.44	4.54
Medium	63	--	31.75	9.18	10.23	6.14	57.30	5.73
Fast	68	--	36.76	12.98	15.42	4.56	69.72	6.97
Ceilings								
Slow	35	--	44.00	10.56	10.37	10.39	75.32	7.53
Medium	40	--	50.00	14.45	16.11	9.67	90.23	9.02
Fast	45	--	55.56	19.61	23.30	6.89	105.36	10.54
Small rooms (restrooms, utility rooms)								
Walls								
Slow	60	--	25.67	6.16	6.05	6.06	43.94	4.39
Medium	65	--	30.77	8.89	9.92	5.95	55.53	5.55
Fast	70	--	35.71	12.61	14.98	4.43	67.73	6.77
Ceilings								
Slow	40	--	38.50	9.24	9.07	9.09	65.90	6.59
Medium	48	--	41.67	12.04	13.43	8.06	75.20	7.52
Fast	55	--	45.45	16.04	19.06	5.64	86.19	8.62
Medium rooms (offices)								
Walls								
Slow	68	--	22.65	5.44	5.34	5.35	38.78	3.88
Medium	80	--	25.00	7.23	8.06	4.83	45.12	4.51
Fast	93	--	26.88	9.49	11.27	3.33	50.97	5.10
Ceilings								
Slow	60	--	25.67	6.16	6.05	6.06	43.94	4.39
Medium	73	--	27.40	7.92	8.83	5.30	49.45	4.95
Fast	85	--	29.41	10.38	12.33	3.65	55.77	5.58
Large rooms (conference rooms)								
Walls								
Slow	85	--	18.12	4.35	4.27	4.28	31.02	3.10
Medium	98	--	20.41	5.90	6.58	3.95	36.84	3.68
Fast	110	--	22.73	8.02	9.53	2.82	43.10	4.31
Ceilings								
Slow	68	--	22.65	5.44	5.34	5.35	38.78	3.88
Medium	80	--	25.00	7.23	8.06	4.83	45.12	4.51
Fast	93	--	26.88	9.49	11.27	3.33	50.97	5.10

	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	80	--	19.25	4.62	4.54	4.55	32.96	3.30
Medium	110	--	18.18	5.25	5.86	3.51	32.80	3.28
Fast	125	--	20.00	7.06	8.39	2.48	37.93	3.79
Ceilings								
Slow	78	--	19.74	4.74	4.65	4.66	33.79	3.38
Medium	90	--	22.22	6.42	7.16	4.30	40.10	4.01
Fast	103	--	24.27	8.57	10.18	3.01	46.03	4.60

Canvas sheeting: see Wall fabric, residential, hand pasted

Grasscloth: see Wall fabric, residential, hand pasted

Burlap: see Wall fabric, residential, hand pasted

Natural fabric, silk: see Wall fabric, residential, hand pasted

Natural fabric, felt, linen, cotton: see Wall fabric, residential, hand pasted

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 \$19.25, "Medium" work on an hourly wage of \$25.00, and "Fast" work on an hourly wage of \$31.25. Add for ready-mix paste.

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
Wall fabric, residential, hand pasted, single rolls per day 18" to 27" wide								
Coated fabrics								
Cut-up areas (stair halls, landing areas)								
Walls								
Slow	12	--	135.00	32.40	31.81	31.87	231.08	23.11
Medium	13	--	163.08	47.13	52.55	31.53	294.29	29.43
Fast	14	--	190.00	67.07	79.69	23.57	360.33	36.03
Ceilings								
Slow	8	--	202.50	48.60	47.71	47.81	346.62	34.66
Medium	9	--	235.56	68.08	75.91	45.55	425.10	42.51
Fast	10	--	266.00	93.90	111.57	33.00	504.47	50.45
Small rooms (baths, utility rooms)								
Walls								
Slow	13	--	124.62	29.91	29.36	29.42	213.31	21.33
Medium	14	--	151.43	43.76	48.80	29.28	273.27	27.33
Fast	15	--	177.33	62.60	74.38	22.00	336.31	33.63
Ceilings								
Slow	10	--	162.00	38.88	38.17	38.25	277.30	27.73
Medium	11	--	192.73	55.70	62.11	37.26	347.80	34.78
Fast	12	--	221.67	78.25	92.98	27.50	420.40	42.04
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	18	--	90.00	21.60	21.20	21.25	154.05	15.41
Medium	20	--	106.00	30.63	34.16	20.49	191.28	19.13
Fast	22	--	120.91	42.68	50.71	15.00	229.30	22.93
Ceilings								
Slow	16	--	101.25	24.30	23.85	23.90	173.30	17.33
Medium	18	--	117.78	34.04	37.96	22.77	212.55	21.26
Fast	20	--	133.00	46.95	55.78	16.50	252.23	25.22
Large rooms (living rooms)								
Walls								
Slow	22	--	73.64	17.67	17.35	17.39	126.05	12.61
Medium	25	--	84.80	24.51	27.33	16.40	153.04	15.30
Fast	28	--	95.00	33.54	39.85	11.79	180.18	18.02
Ceilings								
Slow	19	--	85.26	20.46	20.09	20.13	145.94	14.59
Medium	21	--	100.95	29.17	32.53	19.52	182.17	18.22
Fast	23	--	115.65	40.82	48.51	14.35	219.33	21.93

	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
Large wall areas (corridors, long hallways)								
Walls								
Slow	26	--	62.31	14.95	14.68	14.71	106.65	10.67
Medium	29	--	73.10	21.13	23.56	14.13	131.92	13.19
Fast	32	--	83.13	29.34	34.87	10.31	157.65	15.77
Ceilings								
Slow	22	--	73.64	17.67	17.35	17.39	126.05	12.61
Medium	24	--	88.33	25.53	28.47	17.08	159.41	15.94
Fast	26	--	102.31	36.12	42.91	12.69	194.03	19.40
Canvas sheeting								
Medium room walls (bedrooms, dining rooms)								
Walls								
Slow	14	--	115.71	27.77	27.26	27.32	198.06	19.81
Medium	16	--	132.50	38.29	42.70	25.62	239.11	23.91
Fast	17	--	156.47	55.23	65.63	19.41	296.74	29.67
Grasscloth								
Medium room walls (bedrooms, dining rooms)								
Walls								
Slow	15	--	108.00	25.92	25.44	25.50	184.86	18.49
Medium	20	--	106.00	30.63	34.16	20.49	191.28	19.13
Fast	24	--	110.83	39.12	46.48	13.75	210.18	21.02
Burlap								
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	10	--	162.00	38.88	38.17	38.25	277.30	27.73
Medium	14	--	151.43	43.76	48.80	29.28	273.27	27.33
Fast	18	--	147.78	52.17	61.98	18.34	280.27	28.03
Natural fabric, silk								
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	8	--	202.50	48.60	47.71	47.81	346.62	34.66
Medium	12	--	176.67	51.06	56.93	34.16	318.82	31.88
Fast	15	--	177.33	62.60	74.38	22.00	336.31	33.63
Natural fabric, felt, linen, cotton								
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	7	--	231.43	55.54	54.52	54.64	396.13	39.61
Medium	9	--	235.56	68.08	75.91	45.55	425.10	42.51
Fast	11	--	241.82	85.36	101.43	30.00	458.61	45.86

The table above assumes that residential rolls are hand 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 \$20.25, "Medium" work on an hourly wage of \$26.50, and "Fast" work on an hourly wage of \$33.25. Add for ready-mix paste.

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
Wallpaper, commercial, machine pasted, single rolls per day, 27" width								
Blind stock (lining)								
Cut-up areas (stair halls, landing areas)								
Walls								
Slow	19	--	81.05	19.45	19.10	19.14	138.74	13.87
Medium	21	--	95.24	27.52	30.69	18.41	171.86	17.19
Fast	23	--	108.70	38.37	45.59	13.49	206.15	20.62
Ceilings								
Slow	16	--	96.25	23.10	22.68	22.72	164.75	16.48
Medium	18	--	111.11	32.11	35.81	21.48	200.51	20.05
Fast	20	--	125.00	44.13	52.43	15.51	237.07	23.71
Small rooms (restrooms, utility rooms)								
Walls								
Slow	21	--	73.33	17.60	17.28	17.31	125.52	12.55
Medium	25	--	80.00	23.12	25.78	15.47	144.37	14.44
Fast	29	--	86.21	30.43	36.16	10.70	163.50	16.35
Ceilings								
Slow	17	--	90.59	21.74	21.34	21.39	155.06	15.51
Medium	20	--	100.00	28.90	32.23	19.34	180.47	18.05
Fast	22	--	113.64	40.11	47.66	14.10	215.51	21.55
Medium rooms (offices)								
Walls								
Slow	29	--	58.10	12.74	12.51	12.54	90.89	9.09
Medium	35	--	57.14	16.51	18.41	11.05	103.11	10.31
Fast	41	--	60.98	21.53	25.58	7.57	115.66	11.57
Ceilings								
Slow	25	--	61.60	14.78	14.51	14.54	105.43	10.54
Medium	30	--	66.67	19.27	21.49	12.89	120.32	12.03
Fast	34	--	73.53	25.96	30.84	9.12	139.45	13.95
Large rooms (conference rooms)								
Walls								
Slow	35	--	44.00	10.56	10.37	10.39	75.32	7.53
Medium	41	--	48.78	14.10	15.72	9.43	88.03	8.80
Fast	47	--	53.19	18.78	22.31	6.60	100.88	10.09
Ceilings								
Slow	29	--	53.10	12.74	12.51	12.54	90.89	9.09
Medium	34	--	58.82	17.00	18.96	11.37	106.15	10.62
Fast	38	--	65.79	23.22	27.59	8.16	124.76	12.48

	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
Large wall areas (corridors, long hallways)								
Walls								
Slow	40	--	38.50	9.24	9.07	9.09	65.90	6.59
Medium	45	--	44.44	12.84	14.32	8.59	80.19	8.02
Fast	50	--	50.00	17.65	20.97	6.20	94.82	9.48
Ceilings								
Slow	33	--	46.67	11.20	11.00	11.02	79.89	7.99
Medium	38	--	52.63	15.21	16.96	10.18	94.98	9.50
Fast	42	--	59.52	21.01	24.96	7.38	112.87	11.29
Ordinary pre-trimmed wallpaper or butt joint work								
Medium room walls (offices)								
Walls								
Slow	26	--	59.23	14.22	13.96	13.99	101.40	10.14
Medium	31	--	64.52	18.65	20.79	12.48	116.44	11.64
Fast	36	--	69.44	24.51	29.12	8.61	131.68	13.17
Ceilings								
Slow	23	--	66.96	16.07	15.78	15.81	114.62	11.46
Medium	28	--	71.43	20.64	23.02	13.81	128.90	12.89
Fast	32	--	78.13	27.58	32.77	9.69	148.17	14.82
Hand-crafted wallpaper								
Medium room walls (offices)								
Walls								
Slow	20	--	77.00	18.48	18.14	18.18	131.80	13.18
Medium	24	--	83.33	24.08	26.85	16.11	150.37	15.04
Fast	28	--	89.29	31.52	37.45	11.08	169.34	16.93
Ceilings								
Slow	18	--	85.56	20.53	20.16	20.20	146.45	14.65
Medium	21	--	95.24	27.52	30.69	18.41	171.86	17.19
Fast	23	--	108.70	38.37	45.59	13.49	206.15	20.62
Flock wallpaper, medium rooms (offices)								
Walls								
Slow	14	--	110.00	26.40	25.92	25.97	188.29	18.83
Medium	17	--	117.65	34.00	37.91	22.75	212.31	21.23
Fast	20	--	125.00	44.13	52.43	15.51	237.07	23.71
Foil wallpaper, medium rooms (offices)								
Walls								
Slow	13	--	118.46	28.43	27.91	27.97	202.77	20.28
Medium	16	--	125.00	36.13	40.28	24.17	225.58	22.56
Fast	19	--	131.58	46.45	55.19	16.33	249.55	24.96

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
Canvas wallpaper, medium rooms (offices)								
Walls								
Slow	12	--	128.33	30.80	30.23	30.30	219.66	21.97
Medium	14	--	142.86	41.29	46.04	27.62	257.81	25.78
Fast	16	--	156.25	55.16	65.54	19.39	296.34	29.63
Scenic wallpaper, medium rooms (offices)								
Walls								
Slow	16	--	96.25	23.10	22.68	22.72	164.75	16.48
Medium	18	--	111.11	32.11	35.81	21.48	200.51	20.05
Fast	20	--	125.00	44.13	52.43	15.51	237.07	23.71

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 \$19.25, "Medium" work on an hourly wage of \$25.00, and "Fast" work on an hourly wage of \$31.25. Add for ready-mix paste.

	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
Wallpaper, residential, hand pasted, single rolls per day 18" to 27" wide								
Blind stock (lining)								
Cut-up areas (stair halls, landing areas)								
Walls								
Slow	11	--	147.27	35.34	34.70	34.77	252.08	25.21
Medium	13	--	163.08	47.13	52.55	31.53	294.29	29.43
Fast	14	--	190.00	67.07	79.69	23.57	360.33	36.03
Ceilings								
Slow	10	--	162.00	38.88	38.17	38.25	277.30	27.73
Medium	11	--	192.73	55.70	62.11	37.26	347.80	34.78
Fast	12	--	221.67	78.25	92.98	27.50	420.40	42.04
Small rooms (baths, utility rooms)								
Walls								
Slow	12	--	135.00	32.40	31.81	31.87	231.08	23.11
Medium	14	--	151.43	43.76	48.80	29.28	273.27	27.33
Fast	16	--	166.25	58.69	69.73	20.63	315.30	31.53
Ceilings								
Slow	11	--	147.27	35.34	34.70	34.77	252.08	25.21
Medium	13	--	163.08	47.13	52.55	31.53	294.29	29.43
Fast	14	--	190.00	67.07	79.69	23.57	360.33	36.03
Medium rooms (bedrooms, dining rooms)								
Walls								
Slow	20	--	81.00	19.44	19.08	19.12	138.64	13.86
Medium	23	--	92.17	26.64	29.70	17.82	166.33	16.63
Fast	26	--	102.31	36.12	42.91	12.69	194.03	19.40
Ceilings								
Slow	18	--	90.00	21.60	21.20	21.25	154.05	15.41
Medium	20	--	106.00	30.63	34.16	20.49	191.28	19.13
Fast	22	--	120.91	42.68	50.71	15.00	229.30	22.93
Large rooms (living rooms)								
Walls								
Slow	23	--	70.43	16.90	16.59	16.63	120.55	12.06
Medium	27	--	78.52	22.69	25.30	15.18	141.69	14.17
Fast	31	--	85.81	30.29	35.99	10.65	162.74	16.27
Ceilings								
Slow	20	--	81.00	19.44	19.08	19.12	138.64	13.86
Medium	22	--	96.36	27.85	31.05	18.63	173.89	17.39
Fast	24	--	110.83	39.12	46.48	13.75	210.18	21.02

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
Large wall areas (corridors, long hallways)								
Walls								
Slow	29	--	55.86	13.41	13.16	13.19	95.62	9.56
Medium	33	--	64.24	18.57	20.70	12.42	115.93	11.59
Fast	36	--	73.89	26.08	30.99	9.17	140.13	14.01
Ceilings								
Slow	23	--	70.43	16.90	16.59	16.63	120.55	12.06
Medium	25	--	84.80	24.51	27.33	16.40	153.04	15.30
Fast	27	--	98.52	34.78	41.32	12.22	186.84	18.68
Ordinary pre-trimmed wallpaper or butt joint work								
Medium room walls (bedrooms, dining rooms)								
Walls								
Slow	18	--	90.00	21.60	21.20	21.25	154.05	15.41
Medium	21	--	100.95	29.17	32.53	19.52	182.17	18.22
Fast	24	--	110.83	39.12	46.48	13.75	210.18	21.02
Ceilings								
Slow	16	--	101.25	24.30	23.85	23.90	173.30	17.33
Medium	18	--	117.78	34.04	37.96	22.77	212.55	21.26
Fast	20	--	133.00	46.95	55.78	16.50	252.23	25.22
Hand-crafted wallpaper								
Medium room walls (bedrooms, dining rooms)								
Walls								
Slow	12	--	135.00	32.40	31.81	31.87	231.08	23.11
Medium	15	--	141.33	40.84	45.54	27.33	255.04	25.50
Fast	18	--	147.78	52.17	61.98	18.34	280.27	28.03
Ceilings								
Slow	10	--	162.00	38.88	38.17	38.25	277.30	27.73
Medium	12	--	176.67	51.06	56.93	34.16	318.82	31.88
Fast	14	--	190.00	67.07	79.69	23.57	360.33	36.03
Flock wallpaper, medium rooms (bedrooms, dining rooms)								
Walls								
Slow	10	--	162.00	38.88	38.17	38.25	277.30	27.73
Medium	13	--	163.08	47.13	52.55	31.53	294.29	29.43
Fast	16	--	166.25	58.69	69.73	20.63	315.30	31.53
Foil wallpaper, medium rooms (bedrooms, dining rooms)								
Walls								
Slow	9	--	180.00	43.20	42.41	42.50	308.11	30.81
Medium	12	--	176.67	51.06	56.93	34.16	318.82	31.88
Fast	15	--	177.33	62.60	74.38	22.00	336.31	33.63

	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
Canvas wallpaper, medium rooms (bedrooms, dining rooms)								
Walls								
Slow	8	--	202.50	48.60	47.71	47.81	346.62	34.66
Medium	10	--	212.00	61.27	68.32	40.99	382.58	38.26
Fast	12	--	221.67	78.25	92.98	27.50	420.40	42.04
Scenic wallpaper, medium rooms (bedrooms, dining rooms)								
Walls								
Slow	12	--	135.00	32.40	31.81	31.87	231.08	23.11
Medium	14	--	151.43	43.76	48.80	29.28	273.27	27.33
Fast	16	--	166.25	58.69	69.73	20.63	315.30	31.53

The table above assumes that residential rolls are hand 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 \$20.25, "Medium" work on an hourly wage of \$26.50, and "Fast" work on an hourly wage of \$33.25. Add for ready-mix paste.

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