Welcome to the new Master Painters Institute Architectural Painting Specification Decision Tree. This method was developed as a result of a request from the US Navy.

Using this version of the manual should be easier for anyone specifying paint systems for the multiple architectural substrates (both interior – 25 substrates and exterior – 23 substrates). The focus of this process is a simple question and answer method to attain the best possible system for a specific substrate. The user will be asked to answer from 8 – 10 questions for each system.

The paint systems that are chosen using this method are the best possible choices in 90 percent of normal architectural specifications, the remainder or 10% are special purpose choices that would not be considered under normal circumstances (e.g. epoxy coatings on interior composite wood doors).

There is also a quick route to the system choices for those who know exactly what they want to specify.

A demonstration will be included to show you how to use this method of choosing paint systems.

You must go to the MPI Store to purchase and register for this on-line edition of the MPI Architectural Painting Specification Manual. The MPI Maintenance Repainting Manual will be available in this format later in 2010.

The MPI Store is now divided into 3 distinct sections for your ease of use:

1. Printed Publications
2. On-Line (e versions) of the MPI Manuals
3. Downloadable Publications: MPI Product Standards (in a PDF format)

If you have any difficulty using the MPI Store functions, please email us at info@specifypaint.com or call us toll-free at 866-874-6937.

Please note that the MPI Store is authentic and that all transactions are secured by SSL encryption with VeriSign.
Choose your version

Specify Paint Architectural Painting Decision Tree

How to Use the Specify Paint Decision Tree

What is the Decision Tree?
The Decision Tree is an online specifying engine you can login to on any computer.

What information does the Decision Tree contain?
The Decision Tree follows the same standards as the ASM (Architectural Painting Specification Manual) and RSM (Maintenance Repainting Manual).

Next
Is it Interior or Exterior?

Exterior
Includes all substrates or surfaces exposed to the environment and not enclosed.

Interior
Includes all substrates (surfaces) contained within an enclosed structure.
What division do you need?
What is the substrate?
What subtype?

INT 6.3 DRESSED LUMBER
(Including Doors, Door and Window Frames, Moldings, Etc.)

Interior wood doors, window sash, frames, and trim often require a smooth, durable surface, whether as a pigmented paint or as a clear finish. There are two distinct substrate topics within this substrate: Solid Wood Doors & Trim and Composite Doors & Trim.

- Select Option
  - SOLID WOOD DOORS & TRIM (Hard or Soft Wood)
  - COMPOSITE WOOD DOORS (Fiberboard) & TRIM
What is the environmental condition?

**Specify Paint**

Architectural Painting Decision Tree

**INTERIOR**

**INT 6.3 DRESSED LUMBER**

(Including Doors, Door and Window Frames, Moldings, etc.)

**SOLID WOOD DOORS & TRIM**

(Hard or Soft Wood)

**Conditions:**

- **Normal**: These will include systems that would be used in all typical architectural exposures (i.e., interior drywall in a living-room with adult occupants).

- **Aggressive**: These will include systems that would be used in all aggressive architectural exposures (i.e., interior drywall in a living-room with adult occupants).

- **Special Purpose**: Those will include systems that are different from the typical architectural exposure conditions or are exposed to aggressive conditions (i.e., fire retardants on dimension lumber). Please order from MPI store.
What finish type do you want?

- **Opaque**: A coating that hides the previous surface or coating (the material is not transparent). Pigmented or opaque coatings consist of small solid particles of natural or synthetic, inorganic or organic, generally insoluble material that when dispersed in a liquid vehicle to make paint, provide such properties as color, opacity, hardness, weathering properties, gloss control and corrosion resistance.

- **Clear**: A transparent coating that provides protection from abrasion, staining, chemicals or solvents, etc.

- **Stain**: A solution or suspension of coloring matter in a vehicle designed to color a surface by penetration without leaving a continuous film.

*Note: May include stain systems that include a clear topcoat.*
What system by performance level?
What gloss level do you want?

INT 6.3 DRESSED LUMBER

HIGH PERFORMANCE ARCHITECTURAL LATEX

This system uses a latex primer as the first coat to block staining, and provides a uniform, sealed surface.

High Performance Architectural Latex is a high performance system, which provides a significant benefit in the areas of scrub resistance, resistance to marking and marring, and removal of stains and marks from the surface. It provides suitable performance for use in commercial and institutional uses such as schools, public buildings, hospitals, etc. It provides increased washability compared to conventional latex products. They also provide increased resistance to staining, and ease of soil removal. The low and intermediate levels of gloss possess much better resistance to "burnishing" than conventional latex products. These systems provide almost equivalent performance to alkyds, but without the objectionable odor and with a greater "friendliness" to the environment. However, they are more sensitive to cleaners containing strong solvents than are the alkyd systems.

You must choose a gloss level unless it is already selected.

<table>
<thead>
<tr>
<th>System Code</th>
<th>Finish System</th>
<th>Grade</th>
<th>Cost #</th>
<th>Cost Name</th>
<th>MPI #</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 6.3A - G2</td>
<td>HIGH PERFORMANCE ARCHITECTURAL LATEX Gloss Level 2 (&quot;Velvet-Like&quot;)</td>
<td>Premium</td>
<td>1</td>
<td>Latex Primer</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>HPAC Latex</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>HPAC Latex</td>
<td>138</td>
</tr>
<tr>
<td>INT 6.3A - G3</td>
<td>HIGH PERFORMANCE ARCHITECTURAL LATEX Gloss Level 3 (&quot;Eggshell-Like&quot;)</td>
<td>Premium</td>
<td>1</td>
<td>Latex Primer</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>HPAC Latex</td>
<td>139</td>
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<td></td>
<td></td>
<td>3</td>
<td>HPAC Latex</td>
<td>139</td>
</tr>
<tr>
<td>INT 6.3A - G4</td>
<td>HIGH PERFORMANCE ARCHITECTURAL LATEX Gloss Level 4 (&quot;Satin-Like&quot;)</td>
<td>Premium</td>
<td>1</td>
<td>Latex Primer</td>
<td>39</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>2</td>
<td>HPAC Latex</td>
<td>140</td>
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<td></td>
<td></td>
<td></td>
<td>3</td>
<td>HPAC Latex</td>
<td>140</td>
</tr>
<tr>
<td>INT 6.3A - G5</td>
<td>HIGH PERFORMANCE ARCHITECTURAL LATEX Gloss Level 5 (&quot;Semi-Gloss&quot;)</td>
<td>Premium</td>
<td>1</td>
<td>Latex Primer</td>
<td>39</td>
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<tr>
<td></td>
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<td></td>
<td>2</td>
<td>HPAC Latex</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>HPAC Latex</td>
<td>141</td>
</tr>
</tbody>
</table>
Save your system
**Save your system with your own info**

1. Type the location of the paint system (e.g. All 3rd floor doors) in this box. Highlight the “type location here and type your location"
2. Add any notes in the next box (e.g. All six sides of the doors must be painted)
3. Then click on the “Save Option” (very important!)
Move on to your next substrate
Add all of your systems this way
Add a drywall system
You can change the gloss level

Simply click on the gloss level that you want and then "save the option"
Once you have all your systems

Click on the download to an excel file. This is where you will save it to your computer and a specific folder or file.
Opening and saving your file

Specify Paint Architectural Painting Decision Tree

View All System Selections:

<table>
<thead>
<tr>
<th>System Code</th>
<th>Location</th>
<th>Notes</th>
<th>Grade</th>
<th>Coat</th>
<th>Cost Name</th>
<th>MPI #</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 6.3A - G5</td>
<td>All 3rd floor doors</td>
<td>Paint all doors</td>
<td>Premium</td>
<td>1.00</td>
<td>Latex Primer</td>
<td>39</td>
</tr>
<tr>
<td>INT 0.2M - G1</td>
<td>All 3rd floor offices</td>
<td>All walls</td>
<td>Premium</td>
<td>2.00</td>
<td>HPAC Latex</td>
<td>141</td>
</tr>
<tr>
<td>INT 9.2A - G3</td>
<td>All 3rd floor offices</td>
<td>all ceiling</td>
<td>Premium</td>
<td>3.00</td>
<td>Institutional Low Odor/Low VOC</td>
<td>142</td>
</tr>
<tr>
<td>INT 0.2N - G3</td>
<td>All 3rd floor shower rooms</td>
<td>All walls</td>
<td>Premium</td>
<td>4.00</td>
<td>Epoxy High Build (gloss)</td>
<td>103</td>
</tr>
</tbody>
</table>

Download your selection into MS Excel file

Click here to see manufacturers with approved products in every selected paint category

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Opening and saving your file

You may see this message – click on the “yes”
This is your open excel file

Now you need to save this file to your computer. Choose the location in your folders and then name this file and save it.
Choose the location and name the file

Rename the file here (e.g. Sears Building 07-12 paint systems)
Choose the paint manufacturer and products

<table>
<thead>
<tr>
<th>System Code</th>
<th>Location</th>
<th>Notes</th>
<th>Finish System</th>
<th>Grade</th>
<th>Cost #</th>
<th>Cost Name</th>
<th>MPI #</th>
</tr>
</thead>
<tbody>
<tr>
<td>INT 6.3A - G5</td>
<td>All 3rd floor doors</td>
<td>Paint all six sides</td>
<td>HIGH PERFORMANCE ARCHITECTURAL LATEX (Gloss Level 5) (Semi-Gloss)</td>
<td>Premium</td>
<td>1</td>
<td>Latex Primer</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>HPAC Latex</td>
<td>141</td>
</tr>
<tr>
<td>INT 9.2A - G3</td>
<td>All 3rd floor offices</td>
<td>all ceilings</td>
<td>INSTITUTIONAL LOW ODOR/LOW VOC (Gloss Level 5) (Flat or Matte)</td>
<td>Premium</td>
<td>1</td>
<td>Primer Sealer, Interior, Low Odor/Low VOC</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>Institutional Low Odor/Low VOC</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>Institutional Low Odor/Low VOC</td>
<td>143</td>
</tr>
<tr>
<td>INT 9.2A - G3</td>
<td>All 3rd floor offices</td>
<td>all ceilings</td>
<td>Latex (over latex primer sealer) (Gloss Level 5) ( &quot;Kuphal-Like&quot;)</td>
<td>Premium</td>
<td>1</td>
<td>Latex Primer Sealer</td>
<td>50</td>
</tr>
<tr>
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<td></td>
<td>2</td>
<td>Latex</td>
<td>52</td>
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<td></td>
<td></td>
<td>3</td>
<td>Latex</td>
<td>52</td>
</tr>
<tr>
<td>INT 9.2A - G3</td>
<td>All 3rd floor shower rooms</td>
<td>All walls</td>
<td>EPOXY HIGH BUILD LOW GLOSS (over primer) (Gloss Level 5) ( &quot;Kuphal-Like&quot;)</td>
<td>Premium</td>
<td>1</td>
<td>Epoxy Sealer</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>Epoxy High Build (gloss)</td>
<td>108</td>
</tr>
</tbody>
</table>

Download your selection into MS Excel file

Click here to see manufacturers with approved products in every selected paint category

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Choose the paint manufacturer and products

Click on the submit button.
Choose the paint manufacturer and products

Next select the specific manufacturer & products from the list by clicking the select boxes.
Save this file the same way

Choose your folder and rename the file (e.g. Sears Building 07-12 paint products)
What paint manufacturer and product?

You can check the products before saving them to a list by clicking on the MPI # on the systems page. Here is an example of MPI # 141.
Do you need more information?

- Do you need information about a specific substrate or the surface preparation.
- You can get to that information on the substrate page.
Substrate page

**INT 9.2 PLASTER AND GYPSUM BOARD**

Gypsum wallboard, drywall, "sheet rock" type material, and texture finishes, etc.

Plaster is a hard, gypsum-based material found in many older homes and in some new custom designed buildings and restorations. A heavy base or ground coat is applied to wood or metal lath attached to wall studs, and then smooth finishing plaster is applied over top. In many new plaster applications, a gypsum core, paper coated board is used instead of traditional wood lath. This reduces the amount of base coat by about 40%. The method of application of finishing plaster can be varied to obtain a surface that can be smooth to rough in texture (e.g., Trowel - for a smooth surface, floated or Sand Blast finish - low to stipple texture; Spray texture finish - smooth to moderately rough spatter texture; and textured finish - low to rough texture with a wide variety of patterns).

Drywall panels ("gyp Panel; "sheet rock"; gypsum board, etc.) are the most common interior wall surfacing material. These are constructed of a gypsum-based core with a paper coating on all sides. Special purpose panels for fire resistance, damp proofing, and strength, use variations in the core and surfacing material. These panels are attached to vertical framing studs by either galvanized spiral shanked nails, or coated screws, then the seams between the panels are supported with a paper or fiber mesh tape, and filled with a plaster-like joint filler. A uniform painted finish cannot be obtained unless the filler is properly finished. Small defects, such as pinholes, ridges and fiber-VF, become very apparent after painting.

- Select Option
  - **CEILINGS (Plaster & Gypsum Board)**
  - **WALLS (Plaster & Gypsum Board)**
Evaluation of the substrate

Specify Paint
Architectural Painting Decision Tree

INT 6.3 DRESSED LUMBER

**Substrate Info:**

**General Note:**

Interior wood doors, window sash, frames, and trim often require a smooth, cleanable surface, whether as a pigmented paint or as a clear finish.

**Types:**

Interior doors are made from a variety of wood materials. The most common are: hardwood, softwood and composite board or luan. All are available as hollow or solid core and commonly in raised panel or smooth styles. The hardwood types are often covered with a clear or semi-transparent alum finish to enhance the grain. Softwoods use both opaque paints and clear finishes. Composite types use opaque paint finishes. - Outframes, trim, moldings, etc. can be made from softwood or hardwood, in various lams or paint-ready grades.

**Challenges:**

- Historically, pre-hung doors have presented specifiers and contractors with unique challenges in protection from moisture intrusion.
- This intrusion can come from environmental sources, such as humidity, or it can come from repeated cleaning of the surfaces or flowers adjacent. It can also come from manufacture using improperly dried material, or being transported to the job site and stored where moisture can be absorbed long before the Painting Contractor starts, or be improper or inadequate coating by the Painting Contractor.
- This moisture content causes warping, cracking, and delamination; and, ultimately, door as well as coaling failures. General contractors should ensure that doors are stored where moisture will not intrude. until such time as the Painting Contractor can coat all the edges with at least the specified intermediate coat before the pre-hung doors are installed. After installation, it is impossible to properly apply the appropriate coating(s) to all six sides.
- This site storage must also not stockpile the doors in such a way as to allow damage or separations to cause pressure marks. On doors that are to be stained, or clear finished, these pressure marks can result in the coating being absorbed at different rates. This can appear as lighter coats where the pressure marks absorbed less material than adjoining areas.
- Where "prefinished" doors are specified, additional edge priming/finishing or coatings are the prefinner's responsibility.

**Preferred Systems:**

- To obtain a smooth, uniform appearance, for either clear or pigmented finishes, fillers (for open pore woods) sealers, or undercoat products are used. These provide a less porous, even surface to maximize gloss and color uniformity of the finish.
- For residential architectural applications, latex, oil, and lacquer systems are often used where an open-pore finish is desired.
- For clear or stained wood finishing, oil, polyurethane, lacquer, and waterborne acrylic systems are used.
- Where a smooth surface is desired on open pore woods, such as oak and mahogany, a white wood filler should be used as the first coat.
- Occasional woods don't require the paste wood filler, but require a clear sealer or a reduced first coat.
**Surface preparation**

**INT 6.3 DRESSED LUMBER**

**Surface Preparation**

- Interior wood doors, window sash, frames, baseboards and trim require a smooth, paintable surface, either as a primed paint or as a clear finish. This is particularly so in high traffic areas or where repeated contact is expected. Flat finishes have a more natural appearance than the glossy finishes, but will also show excessive marking through dirt contact, polishing from cleaning operations, or ensuing from abrasion. The marking can be particularly noticeable in stained, deep and bright accent colors. Careful attention to the surface preparation can result in a uniformly finished item.

- All components must be free of oil, grease, silicone, wax or other foreign matter. When moisture meter readings are taken, no more than 12% moisture shall be present. Millwork components that are not suitable for finish coat applications shall be reported to the general contractor and/or specifying authority. Components shall not be coated if the finish will not produce satisfactory appearance. All six sides of doors must be adequately coated.

- For dressed wood surfaces to be painted, knots must be sealed, pitch must be removed and afforded areas or to be sealed. Holes, cracks and joints must be filled with appropriate filler. Filling must be level and must blend in with the surrounding surface. Openings in excess of 1/8" (3.18mm) shall not be the responsibility of the Painting Contractor.

- All wood surfaces, which come in contact with moist areas, such as window sills and equipment mounting panels, etc., must be back primed before installation.

- Environmental conditions before and during application, and during drying, shall be as outlined (see Environment Conditions).
Questions or concerns

- If you have any questions or concerns please contact MPI at 1-888-674-8937
- Or email Jody  jody@mpi.net