
USACE / NAVFAC / AFCEC / NASA UFGS-09 90 00 (May 2011)
Change 1 - 05/13

Preparing Activity: NAVFAC Superseding
UFGS-09 90 00 (August 2010)

UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated July 2015

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SECTION 09 90 00

PAINTS AND COATINGS

05/11

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SECTION 09 90 00

PAINTS AND COATINGS 05/11

NOTE: This guide specification covers the requirements for painting of new and existing, interior and exterior substrates, including masonry, concrete, metal, wood and other miscellaneous materials.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable items(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).

NOTE: This Guide Specification is used in the preparation of project specifications for Department of Defense facilities:

1. Buildings;
2. Related mechanical, electrical, and miscellaneous items; and
3. Shore-to-ship utility connections.

This guide specification WAS NOT prepared to address the requirements of routine maintenance painting although it could be modified to do so.

This guide specification DOES NOT address high-performance or specialty coating requirements, or protective coating of industrial structures or facilities, including but not limited to:

1. Towers;
2. Pilings;
3. Pavement markings;
4. Items requiring specialized treatment due to peculiar usage;
5. Petroleum storage facilities;
6. Water storage facilities;
7. Waterfront facilities, except shore-to-ship utility connections; and
8. Hangars

If such items are in the project they should be included in a separate section or this section should be modified accordingly. The following guide specifications are examples of those available for specific service conditions noted, and may be modified to provide for related service conditions:

1. Section 09 97 23 METALLIC TYPE CONDUCTIVE/SPARK RESISTANT CONCRETE FLOOR FINISH. This specification covers the painting of hydraulic structures located in fresh water such as locks and dams.

2. Section 09 97 13.15 LOW VOC POLYSULFIDE INTERIOR COATING OF WELDED STEEL PETROLEUM FUEL TANKS

3. Section 09 97 13.27 EXTERIOR COATING OF STEEL STRUCTURES. This specification is usable for any steel structure exposed to weather, and is usable for other purposes as well, such as hangar structures, enclosed swimming pool structures, and most situations requiring high-performance protective coating systems.

4. Section 09 97 13.16 INTERIOR COATING OF WELDED STEEL WATER TANKS

5. Section 09 97 13.15 LOW VOC POLYSULFIDE INTERIOR COATING OF WELDED STEEL PETROLEUM FUEL TANKS. This is a three-coat epoxy system that is adaptable to a wide range of high-performance protective coating requirements where there is no exposure to sunlight.

This guide generally contains only two types of coating systems, solvent based and water based. If different systems are required regionally, or for special needs, modify the guide accordingly.

PART 1 GENERAL

1.1 REFERENCES

NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a RID outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

ACGIH 0100 (2001; Supplements 2002-2008)
Documentation of the Threshold Limit
Values and Biological Exposure Indices

ASME INTERNATIONAL (ASME)

ASME A13.1 (2007; R 2013) Scheme for the
Identification of Piping Systems

ASTM INTERNATIONAL (ASTM)

ASTM C920 (2014a) Standard Specification for
Elastomeric Joint Sealants

ASTM D235 (2002; R 2012) Mineral Spirits (Petroleum
Spirits) (Hydrocarbon Dry Cleaning Solvent)

ASTM D2824/D2824M (2013) Aluminum-Pigmented Asphalt Roof
Coatings, Non-Fibered, Asbestos Fibered,
and Fibered without Asbestos

ASTM D4214 (2007) Standard Test Method for Evaluating
the Degree of Chalking of Exterior Paint
Films

ASTM D4263 (1983; R 2012) Indicating Moisture in

Concrete by the Plastic Sheet Method

ASTM D4444	(2013) Use and Calibration of Hand-Held Moisture Meters
ASTM D523	(2014) Standard Test Method for Specular Gloss
ASTM D6386	(2010) Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting
ASTM E2129	(2010) Standard Practice for Data Collection for Sustainability Assessment of Building Products
ASTM F1869	(2011) Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride

MASTER PAINTERS INSTITUTE (MPI)

MPI 1	(Oct 2009) Aluminum Paint
MPI 10	(Oct 2009) Exterior Latex, Flat, MPI Gloss Level 1
MPI 101	(Oct 2009) Epoxy Anti-Corrosive Metal Primer
MPI 107	(Oct 2009) Rust Inhibitive Primer (Water-Based)
MPI 108	(Oct 2009) High Build Epoxy Coating, Low Gloss
MPI 11	(Oct 2009) Exterior Latex, Semi-Gloss, MPI Gloss Level 5
MPI 113	(Oct 2009) Exterior Pigmented Elastomeric Coating (Water Based)
MPI 116	(Oct 2009) Epoxy Block Filler
MPI 119	(Oct 2009) Exterior Latex, Gloss
MPI 13	(Oct 2009) Exterior Solvent-Based Semi-Transparent Stain
MPI 134	(Oct 2009) Galvanized Primer (Waterbased)
MPI 138	(Oct 2009) Interior High Performance Latex, MPI Gloss Level 2
MPI 139	(Oct 2009) Interior High Performance Latex, MPI Gloss Level 3
MPI 140	(Oct 2009) Interior High Performance

	Latex, MPI Gloss Level 4
MPI 141	(Oct 2009) Interior High Performance Latex MPI Gloss Level 5
MPI 144	(Oct 2009) Institutional Low Odor / VOC Interior Latex, MPI Gloss Level 2
MPI 145	(Oct 2009) Institutional Low Odor / VOC Interior Latex, MPI Gloss Level 3
MPI 146	(Oct 2009) Institutional Low Odor/VOC Interior Latex, MPI Gloss Level 4
MPI 147	(Oct 2009) Institutional Low Odor / VOC Interior Latex, Semi-Gloss, MPI Gloss Level 5
MPI 151	(Oct 2009) Interior W.B. Light Industrial Coating, MPI Gloss Level 3
MPI 153	(Oct 2009) Interior W.B. Light Industrial Coating, Semi-Gloss, MPI Gloss Level 5
MPI 154	(Oct 2009) Interior W.B. Light Industrial Coating, Gloss, MPI Gloss Level 6
MPI 16	(Oct 2009) Exterior Latex-Based Solid Hide Stain
MPI 161	(Oct 2009) Exterior W.B. Light Industrial Coating, MPI Gloss Level 3
MPI 163	(Oct 2009) Exterior W.B. Light Industrial Coating, Semi-Gloss, MPI Gloss Level 5
MPI 164	(Oct 2009) Exterior W.B. Light Industrial Coating, Gloss, MPI Gloss Level 6
MPI 19	(Oct 2009) Inorganic Zinc Rich Primer
MPI 2	(Oct 2009) Aluminum Heat Resistant Enamel (up to 427 C and 800 F)
MPI 21	(Oct 2009) Heat Resistant Enamel, Gloss (up to 205 degrees C and 400 degrees F), MPI Gloss Level 6
MPI 22	(Oct 2009) Aluminum Paint, High Heat (up to 590 degrees C and 1100 degrees F.
MPI 23	(Oct 2009) Surface Tolerant Metal Primer
MPI 26	(Oct 2009) Cementitious Galvanized Metal Primer
MPI 27	(Oct 2009) Exterior / Interior Alkyd Floor Enamel, Gloss

MPI 31	(Oct 2009) Polyurethane, Moisture Cured, Clear Gloss
MPI 39	(Oct 2009) Interior Latex-Based Wood Primer
MPI 4	(Oct 2009) Interior/Exterior Latex Block Filler
MPI 42	(Oct 2009) Latex Stucco and Masonry Textured Coating
MPI 44	(Oct 2009) Interior Latex, MPI Gloss Level 2
MPI 45	(Oct 2009) Interior Alkyd Primer Sealer
MPI 46	(Oct 2009) Interior Enamel Undercoat
MPI 47	(Oct 2009) Interior Alkyd, Semi-Gloss, MPI Gloss Level 5
MPI 48	(Oct 2009) Interior Alkyd, Gloss, MPI Gloss Level 6
MPI 49	(Oct 2009) Interior Alkyd, Flat, MPI Gloss Level 1
MPI 5	(Oct 2009) Exterior Alkyd Wood Primer
MPI 50	(Oct 2009) Interior Latex Primer Sealer
MPI 51	(Oct 2009) Interior Alkyd, Eggshell, MPI Gloss Level 2
MPI 52	(Oct 2009) Interior Latex, MPI Gloss Level 3
MPI 54	(Oct 2009) Interior Latex, Semi-Gloss, MPI Gloss Level 5
MPI 56	(Oct 2009) Interior Oil Modified Urethane Clear Gloss
MPI 57	(Oct 2009) Interior Oil Modified Urethane Clear Satin
MPI 59	(Oct 2009) Interior/Exterior Floor Enamel, Low Gloss
MPI 6	(Oct 2009) Exterior Latex Wood Primer
MPI 60	(Oct 2009) Interior/Exterior Latex Floor Paint, Low Gloss
MPI 68	(Oct 2009) Interior/Exterior Latex Floor Enamel, Gloss
MPI 7	(Oct 2009) Exterior Oil Wood Primer

MPI 71	(Oct 2009) Polyurethane, Moisture Cured, Clear, Flat
MPI 72	(Oct 2009) Polyurethane, Two Component, Pigmented, Gloss
MPI 77	(Oct 2009) Epoxy Gloss
MPI 79	(Oct 2009) Alkyd Anti-Corrosive Metal Primer
MPI 8	(Oct 2009) Exterior Alkyd, Flat, MPI Gloss Level I
MPI 9	(Oct 2009) Exterior Alkyd, Gloss, MPI Gloss Level 6
MPI 90	(Oct 2009) Interior Wood Stain, Semi-Transparent
MPI 94	(Oct 2009) Exterior Alkyd, Semi-Gloss, MPI Gloss Level 5
MPI 95	(Oct 2009) Quick Drying Primer for Aluminum

SCIENTIFIC CERTIFICATION SYSTEMS (SCS)

SCS	Scientific Certification Systems (SCS)Indoor Advantage
SCS SP-01	(2000) Environmentally Preferable Product Specification for Architectural and Anti-Corrosive Paints

SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC 7/NACE No.4	(2007; E 2004) Brush-Off Blast Cleaning
SSPC Guide 6	(2004) Guide for Containing Surface Preparation Debris Generated During Paint Removal Operations
SSPC Guide 7	(2004; E 2004) Guide to the Disposal of Lead-Contaminated Surface Preparation Debris
SSPC PA 1	(2000; E 2004) Shop, Field, and Maintenance Painting of Steel
SSPC PA Guide 3	(1982; E 1995) A Guide to Safety in Paint Application
SSPC Paint 18	(1982; E 2004) Chlorinated Rubber Intermediate Coat Paint
SSPC QP 1	(2012; E 2012) Standard Procedure for Evaluating Painting Contractors (Field Application to Complex Industrial Structures)

SSPC SP 1	(2015) Solvent Cleaning
SSPC SP 10/NACE No. 2	(2007) Near-White Blast Cleaning
SSPC SP 12/NACE No.5	(2002) Surface Preparation and Cleaning of Metals by Waterjetting Prior to Recoating
SSPC SP 2	(1982; E 2000; E 2004) Hand Tool Cleaning
SSPC SP 3	(1982; E 2004) Power Tool Cleaning
SSPC SP 6/NACE No.3	(2007) Commercial Blast Cleaning
SSPC VIS 1	(2002; E 2004) Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning
SSPC VIS 3	(2004) Guide and Reference Photographs for Steel Surfaces Prepared by Hand and Power Tool Cleaning
SSPC VIS 4/NACE VIS 7	(1998; E 2000; E 2004) Guide and Reference Photographs for Steel Surfaces Prepared by Waterjetting

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety and Health Requirements Manual
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U.S. DEPARTMENT OF DEFENSE (DOD)

MIL-PRF-680	(2010; Rev C; Notice 1 2015) Degreasing Solvent
MIL-STD-101	(2014; Rev C) Color Code for Pipelines and for Compressed Gas Cylinders

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA Method 24	(2000) Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings
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U.S. FEDERAL AVIATION ADMINISTRATION (FAA)

FAA AC 70/7460-1	(2007; Rev K) Obstruction Marking and Lighting
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U.S. GENERAL SERVICES ADMINISTRATION (GSA)

FED-STD-313	(2014; Rev E) Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities
FED-STD-595	(Rev C; Notice 1) Colors Used in

Government Procurement

U.S. GREEN BUILDING COUNCIL (USGBC)

LEED NC (2009) Leadership in Energy and
Environmental Design(tm) New Construction
Rating System

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.1000 Air Contaminants
29 CFR 1910.1001 Asbestos
29 CFR 1910.1025 Lead
29 CFR 1926.62 Lead

UL ENVIRONMENT (ULE)

ULE Greenguard UL Greenguard Certification Program

1.2 SUBMITTALS

NOTE: Review Submittal Description (SD) definitions
in Section 01 33 00 SUBMITTAL PROCEDURES and edit
the following list to reflect only the submittals
required for the project.

The Guide Specification technical editors have
designated those items that require Government
approval, due to their complexity or criticality,
with a "G". Generally, other submittal items can be
reviewed by the Contractor's Quality Control
System. Only add a "G" to an item, if the
submittal is sufficiently important or complex in
context of the project..

For submittals requiring Government approval on Army
projects, a code of up to three characters within
the submittal tags may be used following the "G"
designation to indicate the approving authority.
Codes for Army projects using the Resident
Management System (RMS) are: "AE" for
Architect-Engineer; "DO" for District Office
(Engineering Division or other organization in the
District Office); "AO" for Area Office; "RO" for
Resident Office; and "PO" for Project Office. Codes
following the "G" typically are not used for Navy,
Air Force, and NASA projects.

An "S" following a submittal item indicates that the
submittal is required for the Sustainability
Notebook to fulfill federally mandated sustainable
requirements in accordance with Section 01 33 29
SUSTAINABILITY REPORTING.

Choose the first bracketed item for Navy, Air Force

and NASA projects, or choose the second bracketed
item for Army projects.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.][for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] Submittals with an "S" are for inclusion in the Sustainability Notebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

The current MPI, "Approved Product List" which lists paint by brand, label, product name and product code as of the date of contract award, will be used to determine compliance with the submittal requirements of this specification. The Contractor may choose to use a subsequent MPI "Approved Product List", however, only one list may be used for the entire contract and each coating system is to be from a single manufacturer. All coats on a particular substrate must be from a single manufacturer. No variation from the MPI Approved Products List is acceptable.

Samples of specified materials may be taken and tested for compliance with specification requirements.

In keeping with the intent of Executive Order 13101, "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition", products certified by SCS as meeting SCS SP-01 shall be given preferential consideration over registered products. Products that are registered shall be given preferential consideration over products not carrying any EPP designation.

SD-02 Shop Drawings

Piping identification

Submit color stencil codes

SD-03 Product Data

Certification

[Local/Regional Materials; (LEED NC)

Submit documentation indicating distance between manufacturing facility and the project site. Indicate distance of raw material origin from the project site. Indicate relative dollar value of local/regional materials to total dollar value of products included in project.]

[Environmental Data

] Materials; (LEED NC)

Submit documentation indicating percentage of post-industrial and post-consumer recycled content per unit of product. Indicate relative dollar value of recycled content products to total dollar value of products included in project.

Coating; G[, [_____]]

Manufacturer's Technical Data Sheets; (LEED)

Indicate VOC content.

[Sealant]

SD-04 Samples

Color; G[, [_____]]

Submit manufacturer's samples of paint colors. Cross reference color samples to color scheme as indicated.

**Note: The Sample Wall Coating Mock-Up is to be used
for texture wall coating systems.**

[Textured Wall Coating System; G[, [_____]]

Sample Textured Wall Coating System Mock-Up; G[, [_____]]
]

SD-07 Certificates

Applicator's qualifications

Qualification Testing laboratory for coatings; G[, [_____]]

SD-08 Manufacturer's Instructions

Application instructions

Mixing

Detailed mixing instructions, minimum and maximum application temperature and humidity, potlife, and curing and drying times between coats.

Manufacturer's Material Safety Data Sheets

Submit manufacturer's Material Safety Data Sheets for coatings, solvents, and other potentially hazardous materials, as defined in FED-STD-313.

SD-10 Operation and Maintenance Data

Coatings; G[, [_____]]

Preprinted cleaning and maintenance instructions for all coating systems shall be provided.

SD-11 Closeout Submittals

[Local/Regional Materials; (LEED)

LEED documentation relative to local/regional materials credit in

accordance with LEED Reference Guide. Include in LEED Documentation Notebook.]

[Materials; (LEED)]

[LEED documentation relative to recycled content credit in accordance with LEED Reference Guide. Include in LEED Documentation Notebook.]

[LEED documentation relative to low emitting materials credit in accordance with LEED Reference Guide. Include in LEED Documentation Notebook.]

1.3 APPLICATOR'S QUALIFICATIONS

NOTE: When using the contractor qualification clause rather than the SSPC Certification requirements, edit to require appropriate experience.

NOTE: Select only one of the following two bracketed paragraphs.

[1.3.1 Contractor Qualification

Submit the name, address, telephone number, FAX number, and e-mail address of the contractor that will be performing all surface preparation and coating application. Submit evidence that key personnel have successfully performed surface preparation and application of coatings on [_____] on a minimum of three similar projects within the past three years. List information by individual and include the following:

a. Name of individual and proposed position for this work.

b. Information about each previous assignment including:

Position or responsibility

Employer (if other than the Contractor)

Name of facility owner

Mailing address, telephone number, and telex number (if non-US) of facility owner

Name of individual in facility owner's organization who can be contacted as a reference

Location, size and description of structure

Dates work was carried out

Description of work carried out on structure

]

NOTE: For projects in continental US, Hawaii, Alaska, and Puerto Rico, require SSPC Certification. Use in other locations where qualified US contractor is desired. If project involves removal of paint containing hazardous materials, add requirement for SSPC QP-2 certification in section of specification where the hazardous paint removal is specified, generally section 02 83 13.00 20 LEAD IN CONSTRUCTION or section 02 82 33.13 20 REMOVAL/CONTROL AND DISPOSAL OF PAINT WITH LEAD.

NOTE: **WARNING**WARNING**WARNING**WARNING** Solicitations requiring SSPC Certification should point out the existence and location of the certification requirement, in the Project Information Form. To be enforceable, the requirement must be pointed out in the solicitation documents. SSPC Certification is a special responsibility requirement pursuant to FAR 9.104-2. This is analogous to requiring bidders to have a specified level of experience or expertise and GAO has sustained these types of special requirements.

NOTE: Use bracket option below concerning SSPC QP 1 only when industrial coatings are required. Painting qualifications for projects such as BEQ's, training facilities and general administration buildings do not require QP 1 certification.

[1.3.2 SSPC QP 1 Certification

All contractors and subcontractors that perform surface preparation or coating application shall be certified by the Society for Protective Coatings (formerly Steel Structures Painting Council) (SSPC) to the requirements of SSPC QP 1 prior to contract award, and shall remain certified while accomplishing any surface preparation or coating application. The painting contractors and painting subcontractors must remain so certified for the duration of the project. If a contractor's or subcontractor's certification expires, the firm will not be allowed to perform any work until the certification is reissued. Requests for extension of time for any delay to the completion of the project due to an inactive certification will not be considered and liquidated damages will apply. Notify the Contracting Officer of any change in contractor certification status.

]1.4 QUALITY ASSURANCE

1.4.1 Field Samples and Tests

The Contracting Officer may choose up to two coatings that have been

delivered to the site to be tested at no cost to the Government. Take samples of each chosen product as specified in the paragraph "Sampling Procedures." Test each chosen product as specified in the paragraph "Testing Procedure." Products which do not conform, shall be removed from the job site and replaced with new products that conform to the referenced specification. Testing of replacement products that failed initial testing shall be at no cost to the Government.

NOTE: Only require the testing for large quantities of epoxy/polyurethane coatings or a single coating system that is used in large quantities on the project. A large quantity of epoxy/polyurethane coatings is considered to be 189 Liters 50 gallons or more, a large quantity of other coating systems is considered to be 757 Liters 200 gallons or more. List all coatings for testing by MPI or SSPC paint number in the following paragraph.

[Another required testing is Batch Quality Conformance Testing to prove conformance of the manufacturer's paint to the specified MPI standard. This testing is accomplished before the materials are delivered to the job site. Provide testing for [_____] paint products. Test paint products as specified in the paragraph "Testing Procedure".

1.4.1.1 Sampling Procedure

The Contracting Officer will select paint at random from the products that have been delivered to the job site for sample testing. The Contractor shall provide one liter one quart samples of the selected paint materials. The samples shall be taken in the presence of the Contracting Officer, and labeled, identifying each sample. Provide labels in accordance with the paragraph "Packaging, Labeling, and Storage" of this specification.

1.4.1.2 Testing Procedure

Provide Batch Quality Conformance Testing for specified products, as defined by and performed by MPI. As an alternative to Batch Quality Conformance Testing, the Contractor may provide Qualification Testing for specified products above to the appropriate MPI product specification, using the third-party laboratory approved under the paragraph "Qualification Testing" laboratory for coatings. The qualification testing lab report shall include the backup data and summary of the test results. The summary shall list all of the reference specification requirements and the result of each test. The summary shall clearly indicate whether the tested paint meets each test requirement. Note that Qualification Testing may take 4 to 6 weeks to perform, due to the extent of testing required.

Submit name, address, telephone number, FAX number, and e-mail address of the independent third party laboratory selected to perform testing of coating samples for compliance with specification requirements. Submit documentation that laboratory is regularly engaged in testing of paint samples for conformance with specifications, and that employees performing testing are qualified. If the Contractor chooses MPI to perform the Batch Quality Conformance testing, the above submittal information is not required, only a letter is required from the Contractor stating that MPI will perform the testing.

1.4.2 Textured Wall Coating System

Three complete samples of each indicated type, pattern, and color of textured wall coating system applied to a panel of the same material as that on which the coating system will be applied in the work. Samples of wall coating systems shall be minimum 125 by 175 mm 5 by 7 inches and of sufficient size to show pattern repeat and texture.

1.4.3 Sample Textured Wall Coating System Mock-Up

After coating samples are approved, and prior to starting installation, a minimum 2430 mm by 2430 mm 8 foot by 8 foot mock-up shall be provided for each substrate and for each color and type of textured wall coating, using the actual substrate materials. Once approved the mock-up samples shall be used as a standard of workmanship for installation within the facility. At least 48 hours prior to mock-up installation, the Contractor shall submit written notification to the Contracting Officer's Representative.

[1.4.4 Sustainable Design Certification

NOTE: Products meeting the Gold standard will also meet the basic standard. Require Gold when the facility will be used by people sensitive to air quality conditions, such as child development centers and medical facilities.

Product shall be third party certified in accordance with ULE Greenguard[Gold], SCS Scientific Certification Systems Indoor Advantage[Gold]or equal. Certification shall be performed annually and shall be current.

]1.5 REGULATORY REQUIREMENTS

1.5.1 Environmental Protection

In addition to requirements specified elsewhere for environmental protection, provide coating materials that conform to the restrictions of the local Air Pollution Control District and regional jurisdiction. Notify Contracting Officer of any paint specified herein which fails to conform.

1.5.2 Lead Content

Do not use coatings having a lead content over 0.06 percent by weight of nonvolatile content.

1.5.3 Chromate Content

Do not use coatings containing zinc-chromate or strontium-chromate.

1.5.4 Asbestos Content

Materials shall not contain asbestos.

1.5.5 Mercury Content

Materials shall not contain mercury or mercury compounds.

1.5.6 Silica

Abrasive blast media shall not contain free crystalline silica.

1.5.7 Human Carcinogens

Materials shall not contain ACGIH 0100 confirmed human carcinogens (A1) or suspected human carcinogens (A2).

1.6 PACKAGING, LABELING, AND STORAGE

NOTE: Materials with a high capacity to absorb VOC emissions include materials which are woven, fibrous or porous in nature, such as acoustical ceilings, carpet, and textiles.

Paints shall be in sealed containers that legibly show the contract specification number, designation name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name and address of manufacturer. Pigmented paints shall be furnished in containers not larger than 20 liters 5 gallons. Paints and thinners shall be stored in accordance with the manufacturer's written directions, and as a minimum, stored off the ground, under cover, with sufficient ventilation to prevent the buildup of flammable vapors, and at temperatures between 4 to 35 degrees C 40 to 95 degrees F. Do not store paint, polyurethane, varnish, or wood stain products with materials that have a high capacity to adsorb VOC emissions, [including [____]]. Do not store paint, polyurethane, varnish, or wood stain products in occupied spaces.

1.7 SAFETY AND HEALTH

Apply coating materials using safety methods and equipment in accordance with the following:

Work shall comply with applicable Federal, State, and local laws and regulations, and with the ACCIDENT PREVENTION PLAN, including the Activity Hazard Analysis as specified in Section 01 35 26 GOVERNMENT SAFETY REQUIREMENTS and in Appendix A of EM 385-1-1. The Activity Hazard Analysis shall include analyses of the potential impact of painting operations on painting personnel and on others involved in and adjacent to the work zone.

1.7.1 Safety Methods Used During Coating Application

Comply with the requirements of SSPC PA Guide 3.

1.7.2 Toxic Materials

To protect personnel from overexposure to toxic materials, conform to the most stringent guidance of:

- a. The applicable manufacturer's Material Safety Data Sheets (MSDS) or local regulation.
- b. 29 CFR 1910.1000.

c. ACGIH 0100, threshold limit values.

NOTE: Delete following paragraph if no lead is contained in existing coating systems. For Army projects use Section 02 83 19.00 10 LEAD BASED PAINT HAZARD ABATEMENT, TARGET HOUSING AND CHILD OCCUPIED FACILITIES. In Navy projects where LBP/LCP must be removed or lead-based paint hazards abated as defined by Public Law 102-550 Title X - Residential Lead-Based Paint Hazard Reduction Act of 1992 (ie: in child-targeted facilities such as family housing and childcare facilities), use Section 02 82 33.13 20 REMOVAL/CONTROL AND DISPOSAL OF PAINT WITH LEAD. For Navy projects not affected by Public Law 102-550 Title X, use Section 02 83 13.00 20 REMOVAL/CONTROL AND DISPOSAL OF PAINT WITH LEAD.

- [d. The appropriate OSHA standard in 29 CFR 1910.1025 and 29 CFR 1926.62 for surface preparation on painted surfaces containing lead. Removal and disposal of coatings which contain lead is specified in [Section 02 83 19.00 10 LEAD BASED PAINT HAZARD ABATEMENT, TARGET HOUSING AND CHILD OCCUPIED FACILITIES][Section 02 83 13.00 20 LEAD IN CONSTRUCTION][Section 02 82 33.13 20 REMOVAL/CONTROL AND DISPOSAL OF PAINT WITH LEAD][____]."] Additional guidance is given in SSPC Guide 6 and SSPC Guide 7. Refer to drawings for list of hazardous materials located on this project. Contractor to coordinate paint preparation activities with this specification section.

NOTE: Delete following paragraph if no asbestos is contained in existing coating systems.

-] e. The appropriate OSHA standards in 29 CFR 1910.1001 for surface preparation of painted surfaces containing asbestos. Removal and disposal of coatings which contain asbestos materials is specified in [Section 02 82 16.00 20 ENGINEERING CONTROL OF ASBESTOS CONTAINING MATERIALS][Section 02 82 14.00 10 ASBESTOS HAZARD CONTROL ACTIVITIES]. Refer to drawings for list of hazardous materials located on this project. Contractor to coordinate paint preparation activities with this specification section.

]1.8 ENVIRONMENTAL CONDITIONS

Comply, at minimum, with manufacturer recommendations for space ventilation during and after installation. [Isolate area of application from rest of building when applying high-emission paints or coatings.]

1.8.1 Coatings

Do not apply coating when air or substrate conditions are:

- a. Less than 3 degrees C 5 degrees F above dew point;
- b. Below 10 degrees C 50 degrees F or over 35 degrees C 95 degrees F, unless specifically pre-approved by the Contracting Officer and the

product manufacturer. Under no circumstances shall application conditions exceed manufacturer recommendations.

1.8.2 Post-Application

NOTE: In some regions, designer shall choose the most appropriate option(s) for ventilation. For instance, high-humidity regions may generate too much condensate when using 100 percent outside air.

Vacate space for as long as possible after application. Wait a minimum of 48 hours before occupying freshly painted rooms. Maintain one of the following ventilation conditions during the curing period, or for 72 hours after application:

- a. Supply 100 percent outside air 24 hours a day.
- b. Supply airflow at a rate of 6 air changes per hour, when outside temperatures are between 13 degrees C 55 degrees F and 29 degrees C 85 degrees F and humidity is between 30 percent and 60 percent.
- c. Supply airflow at a rate of 1.5 air changes per hour, when outside air conditions are not within the range stipulated above.

1.9 SUSTAINABLE DESIGN REQUIREMENTS

1.9.1 Local/Regional Materials

NOTE: Using local materials can help minimize transportation impacts, including fossil fuel consumption, air pollution, and labor. Using materials harvested and manufactured within a 500 mile radius from the project site contributes to the following LEED credit: MR5. Coordinate with Section 01 33 29 LEED(tm) DOCUMENTATION. Use second option if Contractor is choosing local materials in accordance with Section 01 33 29 LEED(tm) DOCUMENTATION. First option shall not be used for USACE projects. Army projects shall include second option only if pursuing this LEED credit.

[Use materials or products extracted, harvested, or recovered, as well as manufactured, within a [800][_____] kilometer [500][_____] mile radius from the project site, if available from a minimum of three sources.][See Section 01 33 29 LEED(tm) DOCUMENTATION for cumulative total local material requirements. Paint and coating materials may be locally available.

1.9.2 Environmental Data

NOTE: ASTM E2129 provides for detailed documentation of the sustainability aspects of products used in the project. This level of detail may be useful to the Contractor, Government, building occupants, or the public in assessing the

sustainability of these products.

[Submit Table 1 of ASTM E2129 for the following products: [____].

1.10 SCHEDULING

NOTE: Materials that adsorb VOCs include carpets, textiles, unprimed gypsum wallboard, and acoustical ceiling panels.

Allow paint, polyurethane, varnish, and wood stain installations to cure prior to the installation of materials that adsorb VOCs, including [____].

1.11 COLOR SELECTION

NOTE: Include the following bracketed paragraph and Table if the project includes painting of Shore-To-Ship Utility connections

[Color Coding For Shore-To-Ship Utility Connections: Paint hose connection fittings and shut-off valves the designated color. In addition to color coding provide 50 mm 2 inch high stenciled letters using black stencil paint, clearly designating service for each connection.

**Color Coding for Shore-to-Ship
Utility Connections**

<u>Service</u>	<u>Color</u>	<u>FED-STD-595 No.</u>
Potable Water*	Blue	15044
Water Provided for Fire Protection**	Red	11105
Chilled Water	Striped Blue/White	15044/17886
Oily Waste Water	Striped Yellow/Black	13538/17038
Sewer	Gold	17043
Steam	White	17886
High Pressure Air	Gray	16081
Low Pressure Air	Tan	10324
Fuel	Yellow	13655

* This includes connections serving domestic functions.

** This includes non-potable salt water or, at some locations, fresh water connections provided for fire protection (may also include flushing and cooling requirements). Note: This does not include waterfront fire hydrants.

Color Coding for Shore-to-Ship
Utility Connections

<u>Service</u>	<u>Color</u>	<u>FED-STD-595 No.</u>
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] Colors of finish coats shall be as indicated or specified. Where not indicated or specified, colors shall be selected by the Contracting Officer. Manufacturers' names and color identification are used for the purpose of color identification only. Named products are acceptable for use only if they conform to specified requirements. Products of other manufacturers are acceptable if the colors approximate colors indicated and the product conforms to specified requirements.

Tint each coat progressively darker to enable confirmation of the number of coats.

**NOTE: On Navy projects, do not use Section 09 06 90
COLOR SCHEDULE. Provide color selection on the
contract drawings.**

Color, texture, and pattern of wall coating systems shall be [as indicated][in accordance with Section 09 06 90 COLOR SCHEDULE] [_____].

1.12 LOCATION AND SURFACE TYPE TO BE PAINTED

**NOTE: Drawings should indicate type and extent of
work. Specific quantities should not be cited in
the specification. Indicate on the drawings the
linear amount of existing putty, glazing compound,
sealant or caulking to be replaced with new material
and quantify the area of existing coating to be
removed by methods specified for each substrate
material.**

1.12.1 Painting Included

Where a space or surface is indicated to be painted, include the following unless indicated otherwise.

- Surfaces behind portable objects and surface mounted articles readily detachable by removal of fasteners, such as screws and bolts.
- New factory finished surfaces that require identification or color coding and factory finished surfaces that are damaged during performance of the work.
- Existing coated surfaces that are damaged during performance of the work.

1.12.1.1 Exterior Painting

Includes new surfaces[, existing coated surfaces,] [and] [existing uncoated surfaces,] of the building[s] and appurtenances. Also included are existing coated surfaces made bare by cleaning operations.

1.12.1.2 Interior Painting

Includes new surfaces[, existing uncoated surfaces,] [and] [existing coated surfaces] of the building[s] and appurtenances as indicated and existing coated surfaces made bare by cleaning operations. Where a space or surface is indicated to be painted, include the following items, unless indicated otherwise.

- a. Exposed columns, girders, beams, joists, and metal deck; and
- b. Other contiguous surfaces.

1.12.2 Painting Excluded

Do not paint the following unless indicated otherwise.

- a. Surfaces concealed and made inaccessible by panelboards, fixed ductwork, machinery, and equipment fixed in place.
- b. Surfaces in concealed spaces. Concealed spaces are defined as enclosed spaces above suspended ceilings, furred spaces, attic spaces, crawl spaces, elevator shafts and chases.
- c. Steel to be embedded in concrete.
- d. Copper, stainless steel, aluminum, brass, and lead except existing coated surfaces.
- e. Hardware, fittings, and other factory finished items.
- [f. Surfaces in the following areas shall not be painted:
[_____].

]1.12.3 Mechanical and Electrical Painting

Includes field coating of [interior] [and] [exterior] new [and existing] surfaces.

- a. Where a space or surface is indicated to be painted, include the following items unless indicated otherwise.
 - (1) Exposed piping, conduit, and ductwork;
 - (2) Supports, hangers, air grilles, and registers;
 - (3) Miscellaneous metalwork and insulation coverings.
- [b. Do not paint the following, unless indicated otherwise:
 - [(1) New zinc-coated, aluminum, and copper surfaces under insulation
 -] [(2) New aluminum jacket on piping
 -] [(3) New interior ferrous piping under insulation.

]]1.12.3.1 Fire Extinguishing Sprinkler Systems

Clean, pretreat, prime, and paint new fire extinguishing sprinkler systems

including valves, piping, conduit, hangers, supports, miscellaneous metalwork, and accessories. Apply coatings to clean, dry surfaces, using clean brushes. Clean the surfaces to remove dust, dirt, rust, and loose mill scale. Immediately after cleaning, provide the metal surfaces with one coat primer per schedules. Shield sprinkler heads with protective covering while painting is in progress. Upon completion of painting, remove protective covering from sprinkler heads. Remove sprinkler heads which have been painted and replace with new sprinkler heads. Provide primed surfaces with the following:

- a. Piping in Unfinished Areas: Provide primed surfaces with one coat of red alkyd gloss enamel applied to a minimum dry film thickness of 0.025 mm 1.0 mil in attic spaces, spaces above suspended ceilings, crawl spaces, pipe chases, mechanical equipment room, and spaces where walls or ceiling are not painted or not constructed of a prefinished material. [In lieu of red enamel finish coat, provide piping with 50 mm 2 inch wide red enamel bands or self-adhering red plastic bands spaced at maximum of 6 meters 20 foot intervals.]
- b. Piping in Finished Areas: Provide primed surfaces with two coats of paint to match adjacent surfaces, except provide valves and operating accessories with one coat of red alkyd gloss enamel applied to a minimum dry film thickness of 0.025 mm 1.0 mil. Provide piping with 50 mm 2 inch wide red enamel bands or self-adhering red plastic bands spaced at maximum of 6 meters 20 foot intervals throughout the piping systems.

]1.12.4 Exterior Painting of Site Work Items

Field coat the following items:

New Surfaces	Existing Surfaces
a. [_____]	[_____]
b. [_____]	[_____]
c. [_____]	[_____]

]1.12.5 MISCELLANEOUS PAINTING

Lettering [Building][Room Number(s)]

Lettering shall be provided as scheduled on the drawings, shall be [block] [Gothic] type, and shall be [black enamel] [water-type decalcomania, finished with a protective coating of spar varnish]. Samples shall be approved before application.

[Obstructions To Aviation

NOTE: Structures, such as smokestacks, poles, and buildings, which have been identified as obstruction to aviation will be specified by name. Verify that the structures so identified are not specified to be painted in the sections specifying the structures so that painting will not be specified twice. Coordinate with FAA for alternate colors and patterns.

The following obstructions to aviation shall be painted in the pattern and color prescribed by [FAA AC 70/7460-1] [_____]

1.12.6 Definitions and Abbreviations

1.12.6.1 Qualification Testing

Qualification testing is the performance of all test requirements listed in the product specification. This testing is accomplished by MPI to qualify each product for the MPI Approved Product List, and may also be accomplished by Contractor's third party testing lab if an alternative to Batch Quality Conformance Testing by MPI is desired.

1.12.6.2 Batch Quality Conformance Testing

Batch quality conformance testing determines that the product provided is the same as the product qualified to the appropriate product specification. This testing shall only be accomplished by MPI testing lab.

1.12.6.3 Coating

A film or thin layer applied to a base material called a substrate. A coating may be a metal, alloy, paint, or solid/liquid suspensions on various substrates (metals, plastics, wood, paper, leather, cloth, etc.). They may be applied by electrolysis, vapor deposition, vacuum, or mechanical means such as brushing, spraying, calendaring, and roller coating. A coating may be applied for aesthetic or protective purposes or both. The term "coating" as used herein includes emulsions, enamels, stains, varnishes, sealers, epoxies, and other coatings, whether used as primer, intermediate, or finish coat. The terms paint and coating are used interchangeably.

1.12.6.4 DFT or dft

Dry film thickness, the film thickness of the fully cured, dry paint or coating.

1.12.6.5 DSD

Degree of Surface Degradation, the MPI system of defining degree of surface degradation. Five (5) levels are generically defined under the Assessment sections in the MPI Maintenance Repainting Manual.

1.12.6.6 EPP

Environmentally Preferred Products, a standard for determining environmental preferability in support of Executive Order 13101.

1.12.6.7 EXT

MPI short term designation for an exterior coating system.

1.12.6.8 INT

MPI short term designation for an interior coating system.

1.12.6.9 micron / microns

The metric measurement for 0.001 mm or one/one-thousandth of a millimeter.

1.12.6.10 mil / mils

The English measurement for 0.001 in or one/one-thousandth of an inch, equal to 25.4 microns or 0.0254 mm.

1.12.6.11 mm

The metric measurement for millimeter, 0.001 meter or one/one-thousandth of a meter.

1.12.6.12 MPI Gloss Levels

MPI system of defining gloss. Seven (7) gloss levels (G1 to G7) are generically defined under the Evaluation sections of the MPI Manuals. Traditionally, Flat refers to G1/G2, Eggshell refers to G3, Semigloss refers to G5, and Gloss refers to G6.

Gloss levels are defined by MPI as follows:

Gloss Level	Description	Units at 60 degrees	Units at 85 degrees
G1	Matte or Flat	0 to 5	10 max
G2	Velvet	0 to 10	10 to 35
G3	Eggshell	10 to 25	10 to 35
G4	Satin	20 to 35	35 min
G5	Semi-Gloss	35 to 70	
G6	Gloss	70 to 85	
G7	High Gloss		

Gloss is tested in accordance with ASTM D523. Historically, the Government has used Flat (G1 / G2), Eggshell (G3), Semi-Gloss (G5), and Gloss (G6).

1.12.6.13 MPI System Number

The MPI coating system number in each Division found in either the MPI Architectural Painting Specification Manual or the Maintenance Repainting Manual and defined as an exterior (EXT/REX) or interior system (INT/RIN). The Division number follows the CSI Master Format.

1.12.6.14 Paint

See Coating definition.

1.12.6.15 REX

MPI short term designation for an exterior coating system used in repainting projects or over existing coating systems.

1.12.6.16 RIN

MPI short term designation for an interior coating system used in repainting projects or over existing coating systems.

PART 2 PRODUCTS

2.1 MATERIALS

NOTE: Reprocessed and consolidated latex paints are EPA designated products for recycled content. See Section 01 33 29 SUSTAINABILITY REPORTING and include minimum recycled content options unless designer determines that a cost, quality or availability justification for non-use exists. EPA recycled content requirements must be addressed in all projects regardless of optional LEED/other recycled content goals. Designer must verify suitability, availability and adequate competition (including verification of bracketed percentages included in this guide specification) before specifying products meeting EPA minimum recycled content.

Use of field-applied interior coatings with recycled content, calculated on the basis of post-industrial and post-consumer percentage content, contributes to the following LEED credit: MR4. Coordinate with Section 01 33 29 LEED(tm) DOCUMENTATION. Designer must verify suitability, availability and adequate competition (including verification of bracketed percentages included in this guide specification) before specifying product recycled content requirements. Use second option if Contractor is choosing recycled content products in accordance with Section 01 33 29 LEED(tm) DOCUMENTATION. Army projects shall specify recycled content exceeding EPA requirements only if pursuing this LEED credit.

Conform to the coating specifications and standards referenced in PART 3. Submit manufacturer's technical data sheets for specified coatings and solvents. [Minimum [20][50][_____] percent post-consumer recycled content for the following light-colored paints and primers: [_____] Minimum [50][90][99][_____] percent post-consumer recycled content for the following dark-colored paints and primers: [_____] [All][The following] consolidated latex paints shall contain a minimum of [100][_____] percent post-consumer recycled content[: [_____]].] Comply with applicable regulations regarding toxic and hazardous materials.

PART 3 EXECUTION

NOTE: Exercise caution when deviating from paint systems listed in tables of "PART 3 EXECUTION." Verify compatibility and suitability of paint systems substituted by reviewing the Evaluation of Systems sections of the MPI Manuals.

3.1 PROTECTION OF AREAS AND SPACES NOT TO BE PAINTED

Prior to surface preparation and coating applications, remove, mask, or otherwise protect, hardware, hardware accessories, machined surfaces, radiator covers, plates, lighting fixtures, public and private property, and other such items not to be coated that are in contact with surfaces to be coated. Following completion of painting, workmen skilled in the trades involved shall reinstall removed items. Restore surfaces contaminated by coating materials, to original condition and repair damaged items.

[3.2 REPUTTYING AND REGLAZING

NOTE: Include this paragraph (3.2) only for projects involving painting of existing windows but not including a glazing section. Reputtying work should be covered in glazing section if such a section is used in the project specifications. This is normally used in historical preservation. Avoid using linseed oil putty at building interior to contribute to the following LEED credit: EQ4.

Remove cracked, loose, and defective putty or glazing compound on glazed sash and provide new putty or glazing compound. Where defective putty or glazing compound constitutes 30 percent or more of the putty at any one light, remove the glass and putty or glazing compound and reset the glass. Remove putty or glazing compound without damaging sash or glass. Clean rabbets to bare wood or metal and prime prior to reglazing. Putty for wood sash shall be a linseed oil putty. Patch surfaces to provide smooth transition between existing and new surfaces. Finish putty or glazing compound to a neat and true bead. Allow glazing compound time to cure, in accordance with manufacturer's recommendation, prior to coating application. Allow putty to set one week prior to coating application.

]3.3 RESEALING OF EXISTING EXTERIOR JOINTS

NOTE: Include this paragraph (3.3) only for projects involving resealing of existing exterior joints but not including a sealant section 07 92 00 JOINT SEALANTS. Such work should be covered in sealant section if such a section is used in the project specifications.

3.3.1 Surface Condition

Surfaces shall be clean, dry to the touch, and free from frost and moisture; remove grease, oil, wax, lacquer, paint, defective backstop, or other foreign matter that would prevent or impair adhesion. Where adequate grooves have not been provided, clean out to a depth of 13 mm 1/2 inch and grind to a minimum width of 6 mm 1/4 inch without damage to adjoining work. Grinding shall not be required on metal surfaces.

3.3.2 Backstops

In joints more than 13 mm 1/2 inch deep, install glass fiber roving or neoprene, butyl, polyurethane, or polyethylene foams free of oil or other

staining elements as recommended by sealant manufacturer. Backstop material shall be compatible with sealant. Do not use oakum and other types of absorptive materials as backstops.

3.3.3 Primer and Bond Breaker

Install the type recommended by the sealant manufacturer.

3.3.4 Ambient Temperature

Between 4 degrees C 38 degrees F and 35 degrees C 95 degrees F when applying sealant.

3.3.5 Exterior Sealant

For joints in vertical surfaces, provide ASTM C920, Type S or M, Grade NS, Class 25, Use NT. For joints in horizontal surfaces, provide ASTM C920, Type S or M, Grade P, Class 25, Use T. Color(s) shall be selected by the Contracting Officer. Apply the sealant in accordance with the manufacturer's printed instructions. Force sealant into joints with sufficient pressure to fill the joints solidly. Sealant shall be uniformly smooth and free of wrinkles.

3.3.6 Cleaning

Immediately remove fresh sealant from adjacent areas using a solvent recommended by the sealant manufacturer. Upon completion of sealant application, remove remaining smears and stains and leave the work in a clean condition. Allow sealant time to cure, in accordance with manufacturer's recommendations, prior to coating.

]3.4 SURFACE PREPARATION

NOTE: Existing coating systems need to be defined compositionally before recoating:

1. Hazardous Materials: When planning either partial or full removal of existing coatings, regulatory restrictions and procedures shall be followed. Records establishing the composition of materials in the coating systems, if available, may assist in a preliminary review of planned surface preparation and disposal. Generally an overall assessment of applicable regulations for personnel and environmental protection will be required, with appropriate sampling and testing, followed by use of proper material control procedures.

2. Compatibility of the existing coating system with a planned repair or overcoating system should be determined by procedures such as the following:

a. Identification of the existing topcoat and any undercoats that will be exposed, by consulting local records.

b. If binder extraction is possible, ASTM D2621, "Infrared Identification of Vehicle Solids from

Solvent-Reducible Paints," can be used for vehicle identification.

c. General compatibility considerations and chart listings of expected relationships between binder types are given in MPI Evaluation of systems, "Transition Coat and Architectural Paint Compatibility Chart". Consult coating specialist codes regarding questionable compatibilities indicated in the chart.

d. For some maintenance operations, use of ASTM D5064, "Standard Practice for Conducting a Patch Test to Assess Coating Compatibility," may be warranted. Interpretation of the results of patch testing is not always straight-forward, therefore, consult appropriate coating specialists when considering patch testing.

NOTE: Specify nonhazardous cleaning agents when possible.

Remove dirt, splinters, loose particles, grease, oil, [disintegrated coatings,] and other foreign matter and substances deleterious to coating performance as specified for each substrate before application of paint or surface treatments. Oil and grease shall be removed prior to mechanical cleaning. Cleaning shall be programmed so that dust and other contaminants will not fall on wet, newly painted surfaces. Exposed ferrous metals such as nail heads on or in contact with surfaces to be painted with water-thinned paints, shall be spot-primed with a suitable corrosion-inhibitive primer capable of preventing flash rusting and compatible with the coating specified for the adjacent areas.

[3.4.1 Additional Requirements for Preparation of Surfaces With Existing Coatings

NOTE: Delete inapplicable phrases or entire paragraph if no previously painted surfaces will be encountered.

Before application of coatings, perform the following on surfaces covered by soundly-adhered coatings, defined as those which cannot be removed with a putty knife:

- a. Test existing finishes for lead before sanding, scraping, or removing. If lead is present, refer to paragraph Toxic Materials.
- b. Wipe previously painted surfaces to receive solvent-based coatings, except stucco and similarly rough surfaces clean with a clean, dry cloth saturated with mineral spirits, ASTM D235. Allow surface to dry. Wiping shall immediately precede the application of the first coat of any coating, unless specified otherwise.
- c. Sand existing glossy surfaces to be painted to reduce gloss. Brush, and

wipe clean with a damp cloth to remove dust.

- d. The requirements specified are minimum. Comply also with the application instructions of the paint manufacturer.
- e. Previously painted surfaces [specified to be repainted] [damaged during construction] shall be thoroughly cleaned of all grease, dirt, dust or other foreign matter.
- f. Blistering, cracking, flaking and peeling or other deteriorated coatings shall be removed.
- g. Chalk shall be removed so that when tested in accordance with ASTM D4214, the chalk resistance rating is no less than 8.
- h. Slick surfaces shall be roughened. Damaged areas such as, but not limited to, nail holes, cracks, chips, and spalls shall be repaired with suitable material to match adjacent undamaged areas.
- i. Edges of chipped paint shall be feather edged and sanded smooth.
- j. Rusty metal surfaces shall be cleaned as per SSPC requirements. Solvent, mechanical, or chemical cleaning methods shall be used to provide surfaces suitable for painting.
- k. New, proposed coatings shall be compatible with existing coatings.

][3.4.2 Existing Coated Surfaces with Minor Defects

[Sand, spackle, and treat minor defects to render them smooth. Minor defects are defined as scratches, nicks, cracks, gouges, spalls, alligatoring, chalking, and irregularities due to partial peeling of previous coatings.] [Remove chalking by sanding [or blasting] so that when tested in accordance with ASTM D4214, the chalk rating is not less than 8.]

][3.4.3 Removal of Existing Coatings

Remove existing coatings from the following surfaces:

- a. Surfaces containing large areas of minor defects;
- b. Surfaces containing more than 20 percent peeling area; and
- c. Surfaces designated by the Contracting Officer, such as surfaces where rust shows through existing coatings.

][3.4.4 Substrate Repair

- a. Repair substrate surface damaged during coating removal;
- b. Sand edges of adjacent soundly-adhered existing coatings so they are tapered as smooth as practical to areas involved with coating removal; and
- c. Clean and prime the substrate as specified.

]3.5 PREPARATION OF METAL SURFACES

3.5.1 Existing and New Ferrous Surfaces

NOTE: Surface preparation procedures should be compliant with any local or base restrictions. Specify use of nonhazardous cleaning agents when possible. For cleaning or blasting ferrous surfaces, select applicable options from the table below.

The considerations suggested here for painting over existing paint are covered in a Coating Condition Survey (CCS). Consult UFC 3-190-06 "Protective Coatings and Paints" for details. The intent of performing a CCS is to be able to design a maintenance coating project that carries minimum risk of coating failure.

Ferrous Surface Preparation

SSPC Blasting/Cleaning Levels^a - Primer Types/Exposures

	Exposure ^b		
	Mild	Moderate	Severe ^c
Primer Type	alkyd/oil latex oleoresinous phenolic	alkyd/oil latex oleoresinous phenolic	epoxy silicone inorganic zinc-rich
Surface Condition			
Uncoated			
Oil, grease, dirt	SP 1	for all moderate conditions, select from "mild" or "severe" for	SP 10, SP 12 WJ2 or SP 5 SP 12 WJ1
Localized corrosion - mill scale, rust	SP 2, SP 3, or SP 7 SP 12 WJ-4	intended performance level	AS ABOVE
Extensive deterioration	SP 6 ^d SP 12 WJ-3		AS ABOVE
Shop coated			
Oil, grease, dirt	^e		AS ABOVE
Localized damage to be spot repaired	SP 2, SP 3, or SP 7, SP 12 WJ-4		AS ABOVE

Ferrous Surface Preparation

SSPC Blasting/Cleaning Levels^a - Primer Types/Exposures

	Exposure ^b		
	Mild	Moderate	Severe ^c
Extensive deterioration	SP 6 ^d , SP 12 WJ-3		AS ABOVE
Existing coating			
Oil, grease	e	e	SP 1
Chalking, foreign matter other than oil or grease, localized deterioration	f		g
Extensive deterioration	SP 6 ^d , SP 12 WJ-3		SP 10, SP 12 WJ2 or SP 5 SP 12 WJ1

^a If it is not possible to abrasive blast or use water jetting, SP 11 is recommended. It is considered equivalent to SP 6. SP 11 is also preferred wherever SP 2 or SP 3 are shown in the Table.

^b These are minimum requirements. A high-performing system may be a better choice for longer performance.

^c For marine, chemical, or immersion service, or application of heat resistant or nonslip floor coatings. SP 10 is preferred for zinc-rich primers, and for extremely severe environments where long-term performance is desired.

^d Use water jetting to SP 12 WJ-3, as alternate to SP 6 degree of cleanliness.

^e Use only the steam clean, or non-alkaline detergent solutions of SP 1.

^f First, remove chalk and dirt with a non-alkaline detergent solution, and follow with power wash at minimum 2000 psi. Second, spot clean, in order of preference by SP 6, SP 11, SP 7, SP 3, or SP 2.

^g First, remove chalk and dirt with a non-alkaline detergent solution, and follow with power wash at minimum 2000 psi. Second, spot clean, in order of preference, by SP 10, SP 6, or SP 11.

^h SSPC SP 12/NACE No.5 provides four levels of water jetting cleanliness and they reflect the four levels of abrasive blast cleanliness but direct

Ferrous Surface Preparation

SSPC Blasting/Cleaning Levels^a - Primer Types/Exposures

Exposure ^b		
Mild	Moderate	Severe ^c

correlation is inaccurate or inappropriate. The four levels are (best to worst): WJ-1, WJ-2, WJ-3, and WJ-4. They are equivalent to the abrasive blast standards SSPC SP 5, SP 10, SP 6, and SP 7. The standard also includes three levels of cleanliness for nonvisual contaminants, SC-1, SC-2, and SC-3. The preferred level of cleanliness is between SC-1 or SC-2.

- a. Ferrous Surfaces including Shop-coated Surfaces and Small Areas That Contain Rust, Mill Scale and Other Foreign Substances: [Solvent clean] [or] [detergent wash] in accordance with SSPC SP 1 to remove oil and grease. Where shop coat is missing or damaged, clean according to [SSPC SP 2], [SSPC SP 3], [SSPC SP 6/NACE No.3], or [SSPC SP 10/NACE No. 2]. [Brush-off blast remaining surface in accordance with SSPC 7/NACE No.4]; [Water jetting to SSPC SP 12/NACE No.5 WJ-4 may be used to remove loose coating and other loose materials. Use inhibitor as recommended by coating manufacturer to prevent premature rusting.] Shop-coated ferrous surfaces shall be protected from corrosion by treating and touching up corroded areas immediately upon detection.
- b. Surfaces With More Than 20 Percent Rust, Mill Scale, and Other Foreign Substances: Clean entire surface in accordance with [SSPC SP 6/NACE No.3/SSPC SP 12/NACE No.5 WJ-3][SSPC SP 10/NACE No. 2/SSPC SP 12/NACE No.5 WJ-2].

NOTE: Regarding text below, for new or existing uncoated surfaces requiring nonslip coating, specify MPI 77 with non-skid additive (NSA). For rusted surfaces, modify surface preparation requirements to include near white blast cleaning in accordance with SSPC SP 10 prior to coating application.

- [c. Metal Floor Surfaces to Receive Nonslip Coating: Clean in accordance with [SSPC SP 10/NACE No. 2][SSPC SP 12/NACE No.5 WJ-2].

]3.5.2 Final Ferrous Surface Condition:

NOTE: Verify there are no local or base restrictions on use of abrasive blasting. Specify cleaning options as follows:

Type Coating	Level of Cleaning, SSPC SP ...
a. Latex or Alkyd	2,3,6 or SP 12 WJ-2.(7 and 10, SP 12 WJ-2 or SP 12 WJ-1 may be left in as Contractor options)
b. High Performance (i.e. Epoxy, Urethane, others)	7,10

For tool cleaned surfaces, the requirements are stated in SSPC SP 2 and SSPC SP 3. As a visual reference, cleaned surfaces shall be similar to photographs in SSPC VIS 3.

For abrasive blast cleaned surfaces, the requirements are stated in SSPC 7/NACE No.4, SSPC SP 6/NACE No.3, and SSPC SP 10/NACE No. 2. As a visual reference, cleaned surfaces shall be similar to photographs in SSPC VIS 1.

For waterjet cleaned surfaces, the requirements are stated in SSPC SP 12/NACE No.5. As a visual reference, cleaned surfaces shall be similar to photographs in SSPC VIS 4/NACE VIS 7.

3.5.3 Galvanized Surfaces

- a. New or Existing Galvanized Surfaces With Only Dirt and Zinc Oxidation Products: Clean with [solvent,][steam,][or][non-alkaline detergent solution]in accordance with SSPC SP 1. If the galvanized metal has been passivated or stabilized, the coating shall be completely removed by brush-off abrasive blast. New galvanized steel to be coated shall not be "passivated" or "stabilized" If the absence of hexavalent stain inhibitors is not documented, test as described in ASTM D6386, Appendix X2, and remove by one of the methods described therein.

NOTE: Delete the text below if there are no existing surfaces to receive coatings. For paragraph entitled "Galvanized with Slight Coating Deterioration or with Little or No Rusting," verify there are no local or base restrictions on the use of abrasive blasting.

- b. Galvanized with Slight Coating Deterioration or with Little or No Rusting: Water jetting to SSPC SP 12/NACE No.5 WJ3 to remove loose coating from surfaces with less than 20 percent coating deterioration and no blistering, peeling, or cracking. Use inhibitor as recommended by the coating manufacturer to prevent rusting.

NOTE: Delete the text below if there are no existing surfaces to receive coatings. For paragraph entitled "Galvanized with Severe

**Deteriorated Coating or Severe Rusting," verify
there are no local or base restrictions on the use
of abrasive blasting.**

- c. Galvanized With Severe Deteriorated Coating or Severe Rusting: [Water jet to SSPC SP 12/NACE No.5 WJ3 degree of cleanliness.] [Spot abrasive blast rusted areas as described for steel in SSPC SP 6/NACE No.3, and waterjet to SSPC SP 12/NACE No.5, WJ3 to remove existing coating.]

3.5.4 Non-Ferrous Metallic Surfaces

Aluminum and aluminum-alloy, lead, copper, and other nonferrous metal surfaces.

Surface Cleaning: Solvent clean in accordance with SSPC SP 1 and wash with mild non-alkaline detergent to remove dirt and water soluble contaminants.

3.5.5 Terne-Coated Metal Surfaces

Solvent clean surfaces with mineral spirits, ASTM D235. Wipe dry with clean, dry cloths.

3.5.6 Existing Surfaces with a Bituminous or Mastic-Type Coating

Remove chalk, mildew, and other loose material by washing with a solution of 0.20 liter 1/2 cup trisodium phosphate, 0.1 liter 1/4 cup household detergent, 1.6 liters one quart 5 percent sodium hypochlorite solution and 4.8 liters 3 quarts of warm water.

3.6 PREPARATION OF CONCRETE AND CEMENTITIOUS SURFACE

3.6.1 Concrete and Masonry

- a. Curing: Concrete, stucco and masonry surfaces shall be allowed to cure at least 30 days before painting, except concrete slab on grade, which shall be allowed to cure 90 days before painting.
- b. Surface Cleaning: Remove the following deleterious substances.
 - (1) Dirt, [Chalking,] Grease, and Oil: Wash new [and existing uncoated] surfaces with a solution composed of 0.2 liter 1/2 cup trisodium phosphate, 0.1 liter 1/4 cuphousehold detergent, and 6.4 liters 4 quarts of warm water. Then rinse thoroughly with fresh water. [Wash existing coated surfaces with a suitable detergent and rinse thoroughly.] For large areas, water blasting may be used.
 - (2) Fungus and Mold: Wash [new] [, existing coated,] [and existing uncoated] surfaces with a solution composed of 0.2 liter 1/2 cup trisodium phosphate, 0.1 liter 1/4 cup household detergent, 1.6 liters 1 quart 5 percent sodium hypochlorite solution and 4.8 liters 3 quarts of warm water. Rinse thoroughly with fresh water.
 - (3) Paint and Loose Particles: Remove by wire brushing.
 - (4) Efflorescence: Remove by scraping or wire brushing followed by washing with a 5 to 10 percent by weight aqueous solution of hydrochloric (muriatic) acid. Do not allow acid to remain on the

surface for more than five minutes before rinsing with fresh water. Do not acid clean more than 0.4 square meter 4 square feet of surface, per workman, at one time.

- [(5) Removal of Existing Coatings: For surfaces to receive textured coating MPI 42, remove existing coatings including soundly adhered coatings if recommended by textured coating manufacturer.
-] c. Cosmetic Repair of Minor Defects: Repair or fill mortar joints and minor defects, including but not limited to spalls, in accordance with manufacturer's recommendations and prior to coating application.
- d. Allowable Moisture Content: Latex coatings may be applied to damp surfaces, but not to surfaces with droplets of water. Do not apply epoxies to damp vertical surfaces as determined by ASTM D4263 or horizontal surfaces that exceed 3 lbs of moisture per 1000 square feet in 24 hours as determined by ASTM F1869. In all cases follow manufacturers recommendations. Allow surfaces to cure a minimum of 30 days before painting.

3.6.2 Gypsum Board, Plaster, and Stucco

- a. Surface Cleaning: Plaster and stucco shall be clean and free from loose matter; gypsum board shall be dry. Remove loose dirt and dust by brushing with a soft brush, rubbing with a dry cloth, or vacuum-cleaning prior to application of the first coat material. A damp cloth or sponge may be used if paint will be water-based.
- b. Repair of Minor Defects: Prior to painting, repair joints, cracks, holes, surface irregularities, and other minor defects with patching plaster or spackling compound and sand smooth.
- c. Allowable Moisture Content: Latex coatings may be applied to damp surfaces, but not surfaces with droplets of water. Do not apply epoxies to damp surfaces as determined by ASTM D4263. New plaster to be coated shall have a maximum moisture content of 8 percent, when measured in accordance with ASTM D4444, Method A, unless otherwise authorized. In addition to moisture content requirements, allow new plaster to age a minimum of 30 days before preparation for painting.

3.6.3 Existing Asbestos Cement Surfaces

Remove oily stains by solvent cleaning with mineral spirits, [MIL-PRF-680][ASTM D235]. Remove loose dirt, dust, and other deleterious substances by brushing with a soft brush or rubbing with a dry cloth prior to application of the first coat material. Do not wire brush or clean using other abrasive methods. Surfaces shall be dry and clean prior to application of the coating.

3.7 PREPARATION OF WOOD AND PLYWOOD SURFACES

3.7.1 New [, Existing Uncoated,] [and] [Existing Coated] Plywood and Wood Surfaces, Except Floors:

- a. Wood surfaces shall be cleaned of foreign matter.

Surface Cleaning: Surfaces shall be free from dust and other deleterious substances and in a condition approved by the Contracting Officer prior to receiving paint or other finish. Do not use water to

clean uncoated wood. [Scrape to remove loose coatings. Lightly sand to roughen the entire area of previously enamel-coated wood surfaces.]

- [b. Removal of Fungus and Mold: Wash existing coated surfaces with a solution composed of 0.2 liter 3 ounces (2/3 cup) trisodium phosphate, 0.1 liter 1 ounce (1/3 cup) household detergent, 1.6 liters 1 quart 5 percent sodium hypochlorite solution and 4.8 liters 3 quarts of warm water. Rinse thoroughly with fresh water.
-] c. Moisture content of the wood shall not exceed 12 percent as measured by a moisture meter in accordance with ASTM D4444, Method A, unless otherwise authorized.
- d. Wood surfaces adjacent to surfaces to receive water-thinned paints shall be primed and/or touched up before applying water-thinned paints.
- e. Cracks and Nailheads: Set and putty stop nailheads and putty cracks after the prime coat has dried.
- f. Cosmetic Repair of Minor Defects:
 - (1) Knots and Resinous Wood [and Fire, Smoke, Water, and Color Marker Stained Existing Coated Surface]: Prior to application of coating, cover knots and stains with two or more coats of 1.3-kg-cut 3-pound-cut shellac varnish, plasticized with 0.14 liters 5 ounces of castor oil per liter gallon. Scrape away existing coatings from knotty areas, and sand before treating. Prime before applying any putty over shellacked area.
 - (2) Open Joints and Other Openings: Fill with whiting putty, linseed oil putty. Sand smooth after putty has dried.
 - (3) Checking: Where checking of the wood is present, sand the surface, wipe and apply a coat of pigmented orange shellac. Allow to dry before paint is applied.
- g. Prime Coat For New Exterior Surfaces: Prime coat [wood doors,] [windows,] [frames,] [and] [trim] before wood becomes dirty, warped, [or weathered].

3.7.2 Wood Floor Surfaces, Natural Finish

- a. Initial Surface Cleaning: As specified in paragraph entitled "Surface Preparation."
- [b. Existing Loose Boards and Shoe Molding: Before sanding, renail loose boards. Countersink nails and fill with an approved wood filler. Remove shoe molding before sanding and reinstall after completing other work. At Contractor's option, new shoe molding may be provided in lieu of reinstalling old. New wood molding shall be same size, wood species, and finish as the existing.
-] c. Sanding and Scraping: Sanding of wood floors is specified in Section [09 64 29 WOOD STRIP FLOORING] [09 64 23 WOOD PARQUET FLOORING] [09 64 66 WOOD ATHLETIC FLOORING] [09 64 00 PORTABLE (DEMOUNTABLE) WOOD FLOORING]. Floors of oak or similar open-grain wood shall be filled with wood filler recommended by the finish manufacturer and the excess filler removed.

- d. Final Cleaning: After sanding, sweep and vacuum floors clean. Do not walk on floors thereafter until specified sealer has been applied and is dry.

3.7.3 Interior Wood Surfaces, Stain Finish

Interior wood surfaces to receive stain shall be sanded. Oak and other open-grain wood to receive stain shall be given a coat of wood filler not less than 8 hours before the application of stain; excess filler shall be removed and the surface sanded smooth.

3.7.4 Water Blasting of Existing Coated Wood Surfaces:

**NOTE: Require water blasting for existing wood
surfaces only for architectural restoration work
where the cost is justified.**

Water blasting shall be provided for the following surfaces: [_____].

- a. Sample Panel: Prior to the initial surface cleaning, water blast a representative surface designated by the Contracting Officer. Final surface condition of remaining work shall be similar to sample panel approved by the Contracting Officer.
- b. Initial Surface Cleaning: Water blasting shall consist of washing surfaces to receive paint with a high pressure spray, to remove loose paint, dirt, and other foreign or deleterious materials. The working pressure shall be between 2.8 and 4.8 MPa 400 and 700 pounds per square inch gage (psig) at a nozzle operating rate of a minimum 75 liters per minute (l/min) 20 gallons per minute (g/min.). Do not flood vents or damage windows and floors. If the pressure specified will cause damage to existing wood, advise the Contracting Officer and obtain permission to vary the pressure. Direct the wash nozzle at the surface at an angle of approximately 75 degrees with the surface and at a distance not greater than 1500 mm 5 feet to apply water pressure required to remove loose paint, dirt, chalking, and other foreign matter.
- c. Final Surface Cleaning: After allowing the surfaces to dry for a minimum of 24 hours, remove remaining dirt, splinters, loose particles, disintegrated and loose paint, grease, oil, and other foreign matter from the surface.

3.8 APPLICATION

3.8.1 Coating Application

**NOTE: Use the second bracket option when fire
protection sprinkler systems including valve,
piping, conduit, hangers and other miscellaneous
items are to be painted.**

Painting practices shall comply with applicable federal, state and local laws enacted to insure compliance with Federal Clean Air Standards. Apply coating materials in accordance with SSPC PA 1. SSPC PA 1 methods are applicable to all substrates, except as modified herein.

At the time of application, paint shall show no signs of deterioration. Uniform suspension of pigments shall be maintained during application.

Unless otherwise specified or recommended by the paint manufacturer, paint may be applied by brush, roller, or spray. Use trigger operated spray nozzles for water hoses. Rollers for applying paints and enamels shall be of a type designed for the coating to be applied and the surface to be coated. Wear protective clothing and respirators when applying oil-based paints or using spray equipment with any paints.

Paints, except water-thinned types, shall be applied only to surfaces that are completely free of moisture as determined by sight or touch.

Thoroughly work coating materials into joints, crevices, and open spaces. Special attention shall be given to insure that all edges, corners, crevices, welds, and rivets receive a film thickness equal to that of adjacent painted surfaces.

Each coat of paint shall be applied so dry film shall be of uniform thickness and free from runs, drops, ridges, waves, pinholes or other voids, laps, brush marks, and variations in color, texture, and finish. Hiding shall be complete.

Touch up damaged coatings before applying subsequent coats.[Interior areas shall be broom clean and dust free before and during the application of coating material.]

- [Apply paint to new fire extinguishing sprinkler systems including valves, piping, conduit, hangers, supports, miscellaneous metal work, and accessories. Shield sprinkler heads with protective coverings while painting is in progress. Remove sprinkler heads which have been painted and replace with new sprinkler heads. For piping in unfinished spaces, provide primed surfaces with one coat of red alkyd gloss enamel to a minimum dry film thickness of 0.025 mm 1.0 mil. Unfinished spaces include attic spaces, spaces above suspended ceilings, crawl spaces, pipe chases, mechanical equipment room, and space where walls or ceiling are not painted or not constructed of a prefinished material. For piping in finished areas, provide prime surfaces with two coats of paint to match adjacent surfaces, except provide valves and operating accessories with one coat of red alkyd gloss enamel. Upon completion of painting, remove protective covering from sprinkler heads.
-] a. Drying Time: Allow time between coats, as recommended by the coating manufacturer, to permit thorough drying, but not to present topcoat adhesion problems. Provide each coat in specified condition to receive next coat.
- b. Primers, and Intermediate Coats: Do not allow primers or intermediate coats to dry more than 30 days, or longer than recommended by manufacturer, before applying subsequent coats. Follow manufacturer's recommendations for surface preparation if primers or intermediate coats are allowed to dry longer than recommended by manufacturers of subsequent coatings. Each coat shall cover surface of preceding coat or surface completely, and there shall be a visually perceptible difference in shades of successive coats.
- c. Finished Surfaces: Provide finished surfaces free from runs, drops, ridges, waves, laps, brush marks, and variations in colors.

- d. Thermosetting Paints: Topcoats over thermosetting paints (epoxies and urethanes) should be applied within the overcoating window recommended by the manufacturer.
- e. Floors: [For nonslip surfacing on level floors, as the intermediate coat is applied, cover wet surface completely with almandite garnet, Grit No. 36, with maximum passing U.S. Standard Sieve No. 40 less than 0.5 percent. When the coating is dry, use a soft bristle broom to sweep up excess grit, which may be reused, and vacuum up remaining residue before application of the topcoat.] [For nonslip surfacing on ramps, provide MPI 77 with non-skid additive, applied by roller in accordance with manufacturer's instructions.]

3.8.2 Mixing and Thinning of Paints

Reduce paints to proper consistency by adding fresh paint, except when thinning is mandatory to suit surface, temperature, weather conditions, application methods, or for the type of paint being used. Obtain written permission from the Contracting Officer to use thinners. The written permission shall include quantities and types of thinners to use.

When thinning is allowed, paints shall be thinned immediately prior to application with not more than [0.125 L] [1 pint] of suitable thinner per [liter.] [gallon.] The use of thinner shall not relieve the Contractor from obtaining complete hiding, full film thickness, or required gloss. Thinning shall not cause the paint to exceed limits on volatile organic compounds. Paints of different manufacturers shall not be mixed.

3.8.3 Two-Component Systems

Two-component systems shall be mixed in accordance with manufacturer's instructions. Any thinning of the first coat to ensure proper penetration and sealing shall be as recommended by the manufacturer for each type of substrate.

3.8.4 Coating Systems

**NOTE: Delete Divisions from the Table listing below
that are not required for the project.**

- a. Systems by Substrates: Apply coatings that conform to the respective specifications listed in the following Tables:

Table

Division 3.	Exterior Concrete Paint Table
Division 4.	Exterior Concrete Masonry Units Paint Table
Division 5.	Exterior Metal, Ferrous and Non-Ferrous Paint Table
Division 6.	Exterior Wood; Dressed Lumber, Paneling, Decking, Shingles Paint Table
Division 9:	Exterior Stucco Paint Table
Division 10.	Exterior Cloth Coverings and Bituminous Coated Surfaces Paint Table
Division 3.	Interior Concrete Paint Table
Division 4.	Interior Concrete Masonry Units Paint Table

Table

Division 5.	Interior Metal, Ferrous and Non-Ferrous Paint Table
Division 6.	Interior Wood Paint Table
Division 9:	Interior Plaster, Gypsum Board, Textured Surfaces Paint Table

- b. Minimum Dry Film Thickness (DFT): Apply paints, primers, varnishes, enamels, undercoats, and other coatings to a minimum dry film thickness of 0.038 mm 1.5 mil each coat unless specified otherwise in the Tables. Coating thickness where specified, refers to the minimum dry film thickness.
- c. Coatings for Surfaces Not Specified Otherwise: Coat surfaces which have not been specified, the same as surfaces having similar conditions of exposure.
- d. Existing Surfaces Damaged During Performance of the Work, Including New Patches In Existing Surfaces: Coat surfaces with the following:
 - (1) One coat of primer.
 - (2) One coat of undercoat or intermediate coat.
 - (3) One topcoat to match adjacent surfaces.
- e. Existing Coated Surfaces To Be Painted: Apply coatings conforming to the respective specifications listed in the Tables herein, except that pretreatments, sealers and fillers need not be provided on surfaces where existing coatings are soundly adhered and in good condition. Do not omit undercoats or primers.

3.9 COATING SYSTEMS FOR METAL

Apply coatings of Tables in Division 5 for Exterior and Interior.

- a. Apply specified ferrous metal primer on the same day that surface is cleaned, to surfaces that meet all specified surface preparation requirements at time of application.
- b. Inaccessible Surfaces: Prior to erection, use one coat of specified primer on metal surfaces that will be inaccessible after erection.
- c. Shop-primed Surfaces: Touch up exposed substrates and damaged coatings to protect from rusting prior to applying field primer.
- d. Surface Previously Coated with Epoxy or Urethane: Apply MPI 101, 0.038 mm 1.5 mils DFT immediately prior to application of epoxy or urethane coatings.
- e. Pipes and Tubing: The semitransparent film applied to some pipes and tubing at the mill is not to be considered a shop coat, but shall be overcoated with the specified ferrous-metal primer prior to application of finish coats.
- f. Exposed Nails, Screws, Fasteners, and Miscellaneous Ferrous Surfaces. On surfaces to be coated with water thinned coatings, spot prime exposed nails and other ferrous metal with latex primer MPI 107.

3.10 COATING SYSTEMS FOR CONCRETE AND CEMENTITIOUS SUBSTRATES

Apply coatings of Tables in Division 3, 4 and 9 for Exterior and Interior.

3.11 COATING SYSTEMS FOR WOOD AND PLYWOOD

- a. Apply coatings of Tables in Division 6 for Exterior and Interior.
- b. Prior to erection, apply two coats of specified primer to treat and prime wood [and plywood] surfaces which will be inaccessible after erection.
- c. Apply stains in accordance with manufacturer's printed instructions.
- [d. Wood Floors to Receive Natural Finish: Thin first coat 2 to 1 using thinner recommended by coating manufacturer. Apply all coatings at rate of 30 square meters per 4 liters 300 to 350 square feet per gallon. Apply second coat not less than 2 hours and not over 24 hours after first coat has been applied. Apply with lambs wool applicators or roller as recommended by coating manufacturer. Buff or lightly sand between intermediate coats as recommended by coating manufacturer's printed instructions.

]3.12 PIPING IDENTIFICATION

**NOTE: If pipe marking is to be covered in the
mechanical section, delete this paragraph**

Piping Identification, Including Surfaces In Concealed Spaces: Provide in accordance with [MIL-STD-101][ASME A13.1]. Place stenciling in clearly visible locations. On piping not covered by [MIL-STD-101][ASME A13.1], stencil approved names or code letters, in letters a minimum of 13 mm 1/2 inch high for piping and a minimum of 50 mm 2 inches high elsewhere. Stencil arrow-shaped markings on piping to indicate direction of flow using black stencil paint.

3.13 INSPECTION AND ACCEPTANCE

In addition to meeting previously specified requirements, demonstrate mobility of moving components, including swinging and sliding doors, cabinets, and windows with operable sash, for inspection by the Contracting Officer. Perform this demonstration after appropriate curing and drying times of coatings have elapsed and prior to invoicing for final payment.

3.14 WASTE MANAGEMENT

**NOTE: Take-back programs refer to programs in which
the product manufacturer "takes-back" scrap material
and/or packaging associated with its product. Using
a manufacturer's service contributes to the
following LEED credit: MR2. Coordinate with Section
01 74 19 CONSTRUCTION AND DEMOLITION WASTE
MANAGEMENT. Army projects include bracketed text
option(s) only if pursuing this credit.**

As specified in the Waste Management Plan and as follows. Do not use kerosene or any such organic solvents to clean up water based paints. Properly dispose of paints or solvents in designated containers. Close and seal partially used containers of paint to maintain quality as necessary for reuse. Store in protected, well-ventilated, fire-safe area at moderate temperature. Place materials defined as hazardous or toxic waste in designated containers. [Coordinate with manufacturer for take-back program. Set aside scrap to be returned to manufacturer for recycling into new product. When such a service is not available, local recyclers shall be sought after to reclaim the materials.] [Set aside extra paint for future color matches or reuse by the Government.] [Where local options exist for leftover paint recycling, collect all waste paint by type and provide for delivery to recycling or collection facility for reuse by local organizations.]

3.15 PAINT TABLES

NOTE: Coatings chosen must meet the MPI Green Performance(TM) Standard (GPS-1-05), unless no such products are available for the specified application. An E3 rating is more stringent than an E2 rating, which is more stringent than an E1 rating. Where indoor air quality (odor) is an issue, use only MPI listed materials having a minimum [E2] [E3] rating. Include GPS phrase if project is to achieve LEED credit EQ4. Army projects shall include second bracketed option if pursuing this credit. Designer must edit Interior Paint Tables to include only products that are listed in the MPI Green Approved Products List, available at <http://www.specifygreen.com/APL/ProductIdxByMPInum.asp> if pursuing this credit.

All DFT's are minimum values.[Use only materials [with a GPS green check mark] having a minimum MPI "Environmentally Friendly" [E1] [E2] [E3] rating based on VOC (EPA Method 24) content levels.][Use only interior paints and coatings that meet VOC requirements of LEED low emitting materials credit.] Acceptable products are listed in the MPI Green Approved Products List, available at <http://www.specifygreen.com/APL/ProductIdxByMPInum.asp>.

NOTE: Eliminate paint systems and gloss levels from the paint tables below that are not to be used for this project.

NOTE: As guidance in selection of coating systems in the Paint Tables, VOC compliant materials may be selected, based on:

1. Regional air quality regulations for the site location,
2. The applicable rule, and
3. Any specialty or exemption category.

Environmentally acceptable coatings may be further ensured by avoiding hazardous materials and including, as a minimum, requirements in purchase order or bill of materials to prohibit coatings containing materials listed in paragraph entitled "Environmental Protection." ACGIH A1 confirmed human carcinogens include asbestos, benzene, chromates, and coal tar. ACGIH A2 suspected human carcinogens include cadmium and certain chromates. Specify new galvanized steel, in appropriate section, to be without hexavalent chromium stain inhibitors.

Where only topcoating for cosmetic purposes is required, a compatible topcoat that hides substrate should be selected. There are proposed rules limiting VOC content in states other than California. These rules are for architectural and industrial maintenance paints and coatings. Check local and State regulations concerning allowable VOC limits. The most stringent govern.

Water-based paints and acrylic latex paints are lower in VOCs than solvent-based paints. Water-based paints are generally safer to handle and can be cleaned up with water, reducing health risks to workers and minimizing or avoiding hazardous waste.

NOTE: Gloss levels are defined by MPI as follows:

Gloss Level	Description	Units at 60 degrees	Units at 85 degrees
G1	Matte or Flat	0 to 5	10 max
G2	Velvet	0 to 10	10 to 35
G3	Eggshell	10 to 25	10 to 35
G4	Satin	20 to 35	35 min
G5	Semi-Gloss	35 to 70	
G6	Gloss	70 to 85	
G7	High Gloss		

3.15.1 EXTERIOR PAINT TABLES

NOTE: (DIVISION 3: EXTERIOR CONCRETE PAINT TABLE). For applications of high-build glaze finishes over concrete masonry units requiring block filler that meets resistance to wind-driven rain or resistance to hydrostatic pressure, specify filler materials and applications of Section 09 96 59 HIGH-BUILD GLAZE COATINGS.

(Substrates B and C). Except for new cast-in-place

concrete walls in Iceland, use MPI 10, MPI 11, or MPI 119. Use MPI 42, for accent panels, special effect, or ceilings.

Color: Main reason for painting concrete and stucco is to obtain desired color. Before specifying paint systems, coordinate with other specification sections to confirm that concrete does not have special waterproof finish or applied, colored cementitious finish and that stucco does not have color pigment integral with mix.

Do not use MPI 10, MPI 11, or MPI 119 on new cast-in-place concrete wall surfaces in Iceland. Specify "steinakryl" which is a solvent-borne acrylic paint applied to vertical or near vertical cast-in-place concrete walls. The wall top should be protected by cap or by combination of clear penetrating waterproofing solution and "steinakryl" called, "Steinvári 2000." These products are acceptable and available to the Iceland Prime Contractor.

DIVISION 3: EXTERIOR CONCRETE PAINT TABLE

- A. [New and uncoated existing] [and Existing, previously painted] concrete; vertical surfaces, including undersides of balconies and soffits but excluding tops of slabs:

1. [Latex

[New; MPI EXT 3.1A-G2 (Flat) / Existing; MPI REX 3.1A-G2 (Flat)

Primer:	Intermediate:	Topcoat:
---------	---------------	----------

MPI 10	MPI 10	MPI 10
--------	--------	--------

System DFT: 88 microns 3.5 mils]

[New; MPI EXT 3.1A-G5 (Semigloss) / Existing; MPI EXT 3.1A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
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MPI 11	MPI 11	MPI 11
--------	--------	--------

System DFT: 88 microns 3.5 mils]

[New; MPI EXT 3.1A-G6 (Gloss) / Existing; MPI REX 3.1A-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
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MPI 119	MPI 119	MPI 119
---------	---------	---------

System DFT: 88 microns 3.5 mils]

Primer as recommended by manufacturer. Topcoat: Coating to match adjacent surfaces.]

- B. [New and uncoated existing] [and Existing, previously painted] concrete, textured system; vertical surfaces, including undersides of balconies and soffits but excluding tops of slabs:

1. [Latex Aggregate

[New; MPI EXT 3.1B-G2 (Flat) / Existing; MPI REX 3.1B-G2 (Flat)

Primer:	Intermediate:	Topcoat:
---------	---------------	----------

MPI 42	MPI 10	MPI 10
--------	--------	--------

System DFT: Per Manufacturer]

DIVISION 3: EXTERIOR CONCRETE PAINT TABLE

[New; MPI EXT 3.1B-G5 (Semigloss) / Existing; MPI REX 3.1B-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 42 MPI 11 MPI 11
System DFT: Per Manufacturer]

[New; MPI EXT 3.1B-G6 (Gloss) / Existing; MPI REX 3.1B-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 42 MPI 119 MPI 119
System DFT: Per Manufacturer]

Texture - [Fine] [Medium] [Coarse]. Surface preparation and number of coats in accordance with manufacturer's instructions. Topcoat: Coating to match adjacent surfaces.]

- C. [New and uncoated existing] [and Existing, previously painted] concrete, elastomeric System; vertical surfaces, including undersides of balconies and soffits but excluding tops of slabs:

1. [Elastomeric Coating]

New; MPI EXT 3.1F / Existing; MPI REX 3.1F
Primer: Intermediate: Topcoat:
Per Manufacturer MPI 113 MPI 113
System DFT: 400 microns 16 mils

Primer as recommended by manufacturer. Topcoat: Coating to match adjacent surfaces. Surface preparation and number of coats in accordance with manufacturer's instructions.

NOTE: Apply sufficient coats of MPI 113 to achieve a minimum dry film thickness of 400 microns 16 mils.]

- D. [New and uncoated existing] [and Existing, previously painted] concrete: walls and bottom of swimming pools.

1. [Chlorinated Rubber]

New; / Existing;
Primer: Intermediate: Topcoat:
SSPC Paint 18 SSPC Paint 18 SSPC Paint 18
System DFT: Per Manufacturer

NOTE: Thin first coat (primer) with 1 part of approved thinner to 4 parts of paint by volume.]

- E. [New] [and Existing] Cementitious composition board (including Asbestos cement board):

1. [Latex]

[New; MPI EXT 3.3A-G1 (Flat) / Existing; MPI REX 3.3A-G1 (Flat)
Primer: Intermediate: Topcoat:
MPI 10 MPI 10 MPI 10
System DFT: 112 microns 4.5 mils]

[New; MPI EXT 3.3A-G5 (Semigloss) / Existing; MPI REX 3.3A-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 11 MPI 11 MPI 11
System DFT: 112 microns 4.5 mils]

[New; MPI EXT 3.3A-G6 (Gloss) / Existing; MPI REX 3.3A-G6 (Gloss)

DIVISION 3: EXTERIOR CONCRETE PAINT TABLE

Primer:	Intermediate:	Topcoat:
MPI 119	MPI 119	MPI 119
System DFT: 112 microns 4.5 mils]		

Topcoat: Coating to match adjacent surfaces.]

NOTE: (DIVISION 4: EXTERIOR CONCRETE MASONRY UNITS PAINT TABLE). For applications of high-build glaze finishes over concrete masonry units requiring block filler that meets resistance to wind-driven rain or resistance to hydrostatic pressure, specify filler materials and applications of Section 09 96 59 HIGH-BUILD GLAZE COATINGS.

Color: Main reason for painting concrete masonry is to obtain desired color. Before specifying paint systems, coordinate with other specification sections to confirm that concrete masonry does not have special waterproof finish or applied, colored cementitious finish and that it does not have color pigment integral with mix.

DIVISION 4: EXTERIOR CONCRETE MASONRY UNITS PAINT TABLE

A. [New] [and Existing] concrete masonry on uncoated surface:

1. [Latex

[New; MPI EXT 4.2A-G1 (Flat) / Existing; MPI REX 4.2A-G1 (Flat)			
Block Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 10	MPI 10
System DFT: 275 microns 11 mils]			

[New; MPI EXT 4.2A-G5 (Semigloss) / Existing; MPI REX 4.2A-G5 (Semigloss)			
Block Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 11	MPI 11
System DFT: 275 microns 11 mils]			

[New; MPI EXT 4.2A-G6 (Gloss) / Existing; MPI REX 4.2A-G6 (Gloss)			
Block Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 119	MPI 119
System DFT: 275 microns 11 mils]			

Topcoat: Coating to match adjacent surfaces.]

B. [New] [and Existing] concrete masonry, textured system; on uncoated surface:

1. [Latex Aggregate

[New; MPI EXT 4.2B-G1 (Flat) / Existing; MPI REX 4.2B-G1 (Flat)		
Primer:	Intermediate:	Topcoat:
MPI 42	MPI 42	MPI 10
System DFT: Per Manufacturer]		

DIVISION 4: EXTERIOR CONCRETE MASONRY UNITS PAINT TABLE

[New; MPI EXT 4.2B-G5 (Semigloss) / Existing; MPI REX 4.2B-G5 (Semigloss)

Primer: Intermediate: Topcoat:

MPI 42 MPI 42 MPI 11

System DFT: Per Manufacturer]

[New; MPI EXT 4.2B-G6 (Gloss) / Existing; MPI REX 4.2B-G6 (Gloss)

Primer: Intermediate: Topcoat:

MPI 42 MPI 42 MPI 119

System DFT: Per Manufacturer]

Texture - [Fine] [Medium] [Coarse]. Surface preparation and number of coats in accordance with manufacturer's instructions. Topcoat: Coating to match adjacent surfaces.]

C. [New] [and Existing] concrete masonry, elastomeric system; on uncoated surface:

1. [Elastomeric Coating

New; MPI EXT 4.2D / Existing; MPI REX 4.2D

Primer: Intermediate: Topcoat:

Per Manufacturer MPI 113 MPI 113

System DFT: 400 microns 16 mils

Primer as recommended by manufacturer. Topcoat: Coating to match adjacent surfaces. Surface preparation and number of coats in accordance with manufacturer's instructions.

NOTE: Apply sufficient coats of MPI 113 to achieve a minimum dry film thickness of 400 microns 16 mils.]

NOTE: DIVISION 5: EXTERIOR METAL, FERROUS AND NON-FERROUS PAINT TABLE

(Substrate C). Use MPI 72 in severe environments for a durable, glossy appearance. Use latex systems where MPI 20, MPI 101, or MPI 108 is not allowed. MPI 72, urethane is allowed in California. For selection of top coats, use the first bracket option for geographic areas that do not have harsh environmental conditions. Use the second bracket option for areas that have harsh corrosive environments.

(Substrates F and G). For overcoating existing alkyd, latex or epoxy systems refer to Evaluation Section of MPI Repaint Manual.

(Substrate F). In the first bracket option, select appropriate top coat. Use first top coat option for geographic areas that do not have harsh environmental conditions. Use the second top coat option for areas that have harsh, corrosive environments.

(Substrate K, L, and M). Heat Resistant Paints may require a high heat cure cycle to achieve proper cure. Curing requirements should be determined before specifying so that the supplier will be aware

of requirements.

(Substrate K and L). Consider hot dip galvanizing, aluminum metallizing, and zinc metallizing alternatives to the specified coating systems.

(Substrate M). Consider aluminum metallizing alternative to the specified coating system.

DIVISION 5: EXTERIOR METAL, FERROUS AND NON-FERROUS PAINT TABLE

STEEL / FERROUS SURFACES

A. New Steel that has been hand or power tool cleaned to SSPC SP 2 or SSPC SP 3

1. [Alkyd
[New; MPI EXT 5.1Q-G5 (Semigloss) Existing; MPI REX 5.1D-G5
Primer: Intermediate: Topcoat:
MPI 23 MPI 94 MPI 94
System DFT: 131 microns 5.25 mils]

[New; MPI EXT 5.1Q-G6 (Gloss) / Existing; MPI REX 5.1D-G6
Primer: Intermediate: Topcoat:
MPI 23 MPI 9 MPI 9
System DFT: 131 microns 5.25 mils]]

B. New Steel that has been blast-cleaned to SSPC SP 6/NACE No.3:

2. [Alkyd
[New; MPI EXT 5.1D-G5 (Semigloss) / Existing; MPI REX 5.1D-G5
Primer: Intermediate: Topcoat:
MPI 79 MPI 94 MPI 94
System DFT: 131 microns 5.25 mils]

[New; MPI EXT 5.1D-G6 (Gloss) / Existing; MPI REX 5.1D-G6
Primer: Intermediate: Topcoat:
MPI 79 MPI 9 MPI 9
System DFT: 131 microns 5.25 mils]]

C. Existing steel that has been spot-blasted to SSPC SP 6/NACE No.3:

1. [Surface previously coated with alkyd or latex:

[Waterborne Light Industrial Coating
MPI REX 5.1C-G5 (Semigloss)
Spot Primer: Intermediate: Topcoat:
MPI 79 MPI 163 MPI 163
System DFT: 125 microns 5 mils]

[MPI REX 5.1C-G6 (Gloss)
Spot Primer: Intermediate: Topcoat:
MPI 79 MPI 164 MPI 164
System DFT: 125 microns 5 mils]]

2. [Surface previously coated with epoxy:

[Waterborne Light Industrial

STEEL / FERROUS SURFACES

a. MPI REX 5.1L-G5 (Semigloss)
Spot Primer: Intermediate: Topcoat:
MPI 101 MPI 163 MPI 163
System DFT: 125 microns 5 mils]

[MPI REX 5.1L-G6 (Gloss)
Spot Primer: Intermediate: Topcoat:
MPI 101 MPI 164 MPI 164
System DFT: 125 microns 5 mils]

[Pigmented Polyurethane
b. MPI REX 5.1H-G6 (Gloss)
Spot Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 72
System DFT: 212 microns 8.5 mils]]

D. New [and existing] steel blast cleaned to SSPC SP 10/NACE No. 2:

1. [Waterborne Light Industrial
[MPI EXT 5.1R-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 163
System DFT: 212 microns 8.5 mils]

[MPI EXT 5.1R-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 164
System DFT: 212 microns 8.5 mils]]

2. [Pigmented Polyurethane
MPI EXT 5.1J-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 72
System DFT: 212 microns 8.5 mils]

E. Metal floors (non-shop-primed surfaces or non-slip deck surfaces) with non-skid additive (NSA), load at manufacturer's recommendations.:

1. [Alkyd Floor Enamel
MPI EXT 5.1S-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 79 MPI 27 MPI 27 (plus NSA)
System DFT: 131 microns 5.25 mils]

EXTERIOR GALVANIZED SURFACES

F. New Galvanized surfaces:

1. [Cementitious primer / Latex
[MPI EXT 5.3A-G1 (Flat)
Primer: Intermediate: Topcoat:
MPI 26 MPI 10 MPI 10
System DFT: 112 microns 4.5 mils]

[MPI EXT 5.3A-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 26 MPI 11 MPI 11
System DFT: 112 microns 4.5 mils]

EXTERIOR GALVANIZED SURFACES

- [MPI EXT 5.3A-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 26 MPI 119 MPI 119
System DFT: 112 microns 4.5 mils]]
2. [Waterborne Primer / Latex
[MPI EXT 5.3H-G1 (Flat)
Primer: Intermediate: Topcoat:
MPI 134 MPI 10 MPI 10
System DFT: 112 microns 4.5 mils]
- [MPI EXT 5.3H-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 134 MPI 11 MPI 11
System DFT: 112 microns 4.5 mils]
- [MPI EXT 5.3H-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 134 MPI 119 MPI 119
System DFT: 112 microns 4.5 mils]]
3. [Waterborne Primer / Waterborne Light Industrial Coating
[MPI EXT 5.3J-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 134 MPI 163 MPI 163
System DFT: 112 microns 4.5 mils]
- [MPI EXT 5.3J-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 134 MPI 164 MPI 164
System DFT: 112 microns 4.5 mils]]
4. [Epoxy Primer / Waterborne Light Industrial Coating
[MPI EXT 5.3K-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 163 MPI 163
System DFT: 125 microns 5 mils]
- [MPI EXT 5.3K-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 164 MPI 164
System DFT: 125 microns 5 mils]]
5. [Pigmented Polyurethane
MPI EXT 5.3L-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 101 N/A MPI 72
System DFT: 125 microns 5 mils]
- G. Galvanized surfaces with slight coating deterioration; little or no rusting:
1. [Waterborne Light Industrial Coating
MPI REX 5.3J-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 134 N/A MPI 163
System DFT: 112 microns 4.5 mils]

EXTERIOR GALVANIZED SURFACES

2. [Pigmented Polyurethane
MPI REX 5.3D-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 101 N/A MPI 72
System DFT: 125 microns 5 mils]

H. Galvanized surfaces with severely deteriorated coating or rusting:

1. [Waterborne Light Industrial Coating
[MPI REX 5.3L-G5(Semigloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 163
System DFT: 212 microns 8.5 mils]

[MPI REX 5.3L-G6(Gloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 164
System DFT: 212 microns 8.5 mils]]
2. [Pigmented Polyurethane
MPI REX 5.3K-G6(Gloss)
Primer: Intermediate: Topcoat:
MPI 101 MPI 108 MPI 72
System DFT: 125 microns 5 mils]

EXTERIOR SURFACES, OTHER METALS (NON-FERROUS)

I. Aluminum, aluminum alloy and other miscellaneous non-ferrous metal items not otherwise specified except hot metal surfaces, roof surfaces, and new prefinished equipment. Match surrounding finish:

1. [Alkyd
[MPI EXT 5.4F-G1 (Flat)
Primer: Intermediate: Topcoat:
MPI 95 MPI 8 MPI 8
System DFT: 125 microns 5 mils]

[MPI EXT 5.4F-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 95 MPI 94 MPI 94
System DFT: 125 microns 5 mils]

[MPI EXT 5.4F-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 95 MPI 9 MPI 9
System DFT: 125 microns 5 mils]]
2. [Waterborne Light Industrial Coating
[MPI EXT 5.4G-G3(Eggshell)
Primer: Intermediate: Topcoat:
MPI 95 MPI 161 MPI 161
System DFT: 125 microns 5 mils]

[MPI EXT 5.4G-G5(Semigloss)
Primer: Intermediate: Topcoat:
MPI 95 MPI 163 MPI 163
System DFT: 125 microns 5 mils]

EXTERIOR SURFACES, OTHER METALS (NON-FERROUS)

[MPI EXT 5.4G-G6(Gloss)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 164	MPI 164
System DFT: 125 microns 5 mils]]		

I. Existing roof surfaces previously coated:

1. [Aluminum Pigmented Asphalt Roof Coating
ASTM D2824/D2824M: Sufficient coats to provide not less than 200 microns
8 mils
of finished coating system (without asbestos fibers).]

2. [Aluminum Paint

MPI REX 10.2D		
Primer:	Intermediate:	Topcoat:
MPI 107	MPI 1	MPI 1
System DFT: 88 microns 3.5 mils]		

J. Surfaces adjacent to painted surfaces; [Mechanical,] [Electrical,] [Fire extinguishing sprinkler systems including valves, conduit, hangers, supports,][exposed copper piping,] [and miscellaneous metal items] not otherwise specified except floors, hot metal surfaces, and new prefinished equipment. Match surrounding finish:

1. [Alkyd

[MPI EXT 5.1D-G1 (Flat)		
Primer:	Intermediate:	Topcoat:
MPI 79	MPI 8	MPI 8
System DFT: 131 microns 5.25 mils]		

[MPI EXT 5.1D-G5 (Semigloss)		
Primer:	Intermediate:	Topcoat:
MPI 79	MPI 94	MPI 94
System DFT: 131 microns 5.25 mils]		

[MPI EXT 5.1D-G6 (Gloss)		
Primer:	Intermediate:	Topcoat:
MPI 79	MPI 9	MPI 9
System DFT: 131 microns 5.25 mils]]		

2. [Waterborne Light Industrial Coating

[MPI EXT 5.1C-G3(Eggshell)		
Primer:	Intermediate:	Topcoat:
MPI 79	MPI 161	MPI 161
System DFT: 125 microns 5 mils]		

[MPI EXT 5.1C-G5(Semigloss)		
Primer:	Intermediate:	Topcoat:
MPI 79	MPI 163	MPI 163
System DFT: 125 microns 5 mils]		

[MPI EXT 5.1C-G6(Gloss)		
Primer:	Intermediate:	Topcoat:
MPI 79	MPI 164	MPI 164
System DFT: 125 microns 5 mils]]		

K. Hot metal surfaces [including smokestacks] subject to temperatures up to

EXTERIOR SURFACES, OTHER METALS (NON-FERROUS)

205 degrees C 400 degrees F:

1. [Heat Resistant Enamel

MPI EXT 5.2A

Primer:

Intermediate:

Topcoat:

MPI 21

Surface preparation and number of coats per manufacturer's instructions.

System DFT: Per Manufacturer]

L. Ferrous metal subject to high temperature, up to 400 degrees C 750 degrees F:

1. [Inorganic Zinc Rich Coating

MPI EXT 5.2C

Primer:

Intermediate:

Topcoat:

MPI 19

Surface preparation and number of coats per manufacturer's instructions.

System DFT: Per Manufacturer]

2. [Heat Resistant Aluminum Enamel

MPI EXT 5.2B (Aluminum Finish)

Primer:

Intermediate:

Topcoat:

MPI 2

Surface preparation and number of coats per manufacturer's instructions.

System DFT: Per Manufacturer]

M. [New surfaces and] [Existing surfaces] made bare cleaning to SSPC SP 10/NACE No. 2

subject to temperatures up to 593 degrees C (1100 degrees F):

1. [Heat Resistant Coating

MPI EXT 5.2D

Primer:

Intermediate:

Topcoat:

MPI 22

Surface preparation and number of coats per manufacturer's instructions.

System DFT: Per Manufacturer]

DIVISION 6: EXTERIOR WOOD; DRESSED LUMBER, PANELING, DECKING, SHINGLES PAINT TABLE

A. New [and Existing, uncoated] Dressed lumber, Wood and plywood, trim, [including top, bottom and edges of doors] not otherwise specified:

1. [Alkyd

[MPI EXT 6.3B-G5 (Semigloss)

Primer:

Intermediate:

Topcoat:

MPI 7

MPI 94

MPI 94

System DFT: 125 microns 5 mils]

[MPI EXT 6.3B-G6 (Gloss)

Primer:

Intermediate:

Topcoat:

MPI 7

MPI 9

MPI 9

System DFT: 125 microns 5 mils]]

2. [Latex

[MPI EXT 6.3A-G1 (Flat)

Primer:

Intermediate:

Topcoat:

MPI 7

MPI 10

MPI 10

DIVISION 6: EXTERIOR WOOD; DRESSED LUMBER, PANELING, DECKING, SHINGLES PAINT
TABLE

System DFT: 125 microns 5 mils]

[MPI EXT 6.3A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
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MPI 7	MPI 11	MPI 11
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System DFT: 125 microns 5 mils]

[MPI EXT 6.3A-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
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MPI 7	MPI 119	MPI 119
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System DFT: 125 microns 5 mils]]

3. [Waterborne Solid Color Stain

MPI EXT 6.3K

Primer:	Intermediate:	Topcoat:
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MPI 7	MPI 16	MPI 16
-------	--------	--------

System DFT: 106 microns 4.25 mils]

B. Existing, dressed lumber, Wood and plywood, trim, [including top, bottom
and edges of doors] previously coated with an alkyd / oil based finish
coat not otherwise specified:

1. [Alkyd

[MPI REX 6.3B-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
---------	---------------	----------

MPI 5	MPI 94	MPI 94
-------	--------	--------

System DFT: 125 microns 5 mils]

[MPI REX 6.3B-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
---------	---------------	----------

MPI 5	MPI 9	MPI 9
-------	-------	-------

System DFT: 125 microns 5 mils]]

2. [Latex

[MPI REX 6.3A-G1 (Flat)

Primer:	Intermediate:	Topcoat:
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MPI 5	MPI 10	MPI 10
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System DFT: 125 microns 5 mils]

[MPI REX 6.3A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
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MPI 5	MPI 11	MPI 11
-------	--------	--------

System DFT: 125 microns 5 mils]

[MPI REX 6.3A-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
---------	---------------	----------

MPI 5	MPI 119	MPI 119
-------	---------	---------

System DFT: 125 microns 5 mils]]

C. Existing, dressed lumber, Wood and plywood, trim, [including top, bottom
and edges of doors] previously coated with a latex / waterborne finish coat
not otherwise specified:

1. [Latex

[MPI REX 6.3L-G1 (Flat)

Spot Primer:	Intermediate:	Topcoat:
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MPI 6	MPI 10	MPI 10
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DIVISION 6: EXTERIOR WOOD; DRESSED LUMBER, PANELING, DECKING, SHINGLES PAINT
TABLE

System DFT: 112 microns 4.5 mils]

[MPI REX 6.3L-G5 (Semigloss)

Spot Primer:	Intermediate:	Topcoat:
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MPI 6	MPI 11	MPI 11
-------	--------	--------

System DFT: 112 microns 4.5 mils]

[MPI REX 6.3L-G6 (Gloss)

Spot Primer:	Intermediate:	Topcoat:
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MPI 6	MPI 119	MPI 119
-------	---------	---------

System DFT: 112 microns 4.5 mils]]

2. [Waterborne Solid Color Stain

MPI REX 6.3K (Stain)

Spot Primer:	Intermediate:	Topcoat:
--------------	---------------	----------

MPI 6	MPI 16	MPI 16
-------	--------	--------

System DFT: 100 microns 4 mils]

D. New, Uncoated wood siding:

1. [Semi-Transparent Stain

MPI EXT 6.3D

Spot Primer:	Intermediate:	Topcoat:
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N/A	MPI 13	MPI 13
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System DFT: N/A]

E. Existing, previously stained wood siding:

1. [Latex

[MPI REX 6.2K-G1 (Flat)

Primer:	Intermediate:	Topcoat:
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MPI 5	MPI 10	MPI 10
-------	--------	--------

System DFT: 112 microns 4.5 mils]

[MPI REX 6.2K-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
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MPI 5	MPI 11	MPI 11
-------	--------	--------

System DFT: 112 microns 4.5 mils]]

F. Existing Uncoated or previously semitransparent stained wood siding:

1. [Semi-Transparent Stain

MPI REX 6.3D

Spot Primer:	Intermediate:	Topcoat:
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N/A	MPI 13	MPI 13
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System DFT: Per Manufacturer]

G. Wood: [Steps], [platforms], [floors of open porches], and [_____] [with
non-skid additive (NSA), load at manufacturer's recommendations.]:

1. [Latex Floor Paint

[MPI EXT 6.5A-G2 (Flat)

Primer:	Intermediate:	Topcoat:
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MPI 5	MPI 60 [plus NSA]	MPI 60 [plus NSA]
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System DFT: 112 microns 4.5 mils]

[MPI EXT 6.5A-G6 (Gloss)

DIVISION 6: EXTERIOR WOOD; DRESSED LUMBER, PANELING, DECKING, SHINGLES PAINT TABLE

Primer:	Intermediate:	Topcoat:
MPI 5	MPI 68 [plus NSA]	MPI 68 [plus NSA]
System DFT: 112 microns 4.5 mils]]		

2. [Alkyd Floor Paint

[MPI EXT 6.5B-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 59	MPI 59 [plus NSA]	MPI 59 [plus NSA]
System DFT: 125 microns 5 mils]		

[MPI EXT 6.5B-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 27	MPI 27 [plus NSA]	MPI 27 [plus NSA]
System DFT: 125 microns 5 mils]]		

NOTE: (DIVISION 9: EXTERIOR STUCCO PAINT TABLE)

Color: Main reason for painting stucco is to obtain desired color. Before specifying paint systems, coordinate with other specification sections to confirm that stucco does not have special waterproof finish or applied, colored cementitious finish and that stucco does not have color pigment integral with mix.

DIVISION 9: EXTERIOR STUCCO PAINT TABLE

A. [New] [and Existing] stucco:

1. [Latex

[New; MPI EXT 9.1A-G1 (Flat) / Existing; MPI REX 9.1A-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 10	MPI 10	MPI 10
System DFT: 112 microns 4.5 mils]		

[New; MPI EXT 9.1A-G5 (Semigloss) / Existing; MPI REX 9.1A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 11	MPI 11	MPI 11
System DFT: 112 microns 4.5 mils]		

[New; MPI EXT 9.1A-G6 (Gloss) / Existing; MPI REX 9.1A-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 119	MPI 119	MPI 119
System DFT: 112 microns 4.5 mils]		

Primer as recommended by manufacturer. Topcoat: Coating to match adjacent surfaces. On existing stucco, apply primer based on surface condition.]

B. [New] [and Existing] stucco, elastomeric system:

1. [Elastomeric Coating

New; MPI EXT 9.1C / Existing; MPI REX 9.1C

Primer:	Intermediate:	Topcoat:
N/A	MPI 113	MPI 113

DIVISION 9: EXTERIOR STUCCO PAINT TABLE

System DFT: 400 microns 16 mils

Primer as recommended by manufacturer. Topcoat: Coating to match adjacent surfaces. Surface preparation and number of coats in accordance with manufacturer's instructions).

NOTE: Apply sufficient coats of MPI 113 to achieve a minimum dry film thickness of 400 microns 16 mils.]

DIVISION 10: EXTERIOR CLOTH COVERINGS AND BITUMINOUS COATED SURFACES PAINT TABLE

A. Insulation and surfaces of insulation coverings (canvas, cloth, paper): (Interior and Exterior Applications)

1. [Latex

[MPI EXT 10.1A-G1 (Flat)

Primer:	Intermediate:	Topcoat:
N/A	MPI 10	MPI 10
System DFT: 80 microns 3.2 mils]		

[MPI EXT 10.1A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
N/A	MPI 11	MPI 11
System DFT: 80 microns 3.2 mils]		

[MPI EXT 10.1A-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
N/A	MPI 119	MPI 119
System DFT: 80 microns 3.2 mils]		

Topcoat: Coating to match adjacent surfaces.]

3.15.2 INTERIOR PAINT TABLES

NOTE: Consider latex paint options for occupied buildings and where strong odors would be objectionable. Where allowable, consider eggshell or semigloss enamel in lieu of flat paint for areas subject to soiling where gloss is not desired.

For existing surfaces with alkyd enamel coating, do not specify latex paint which does not bond well to enamel.

(Division 3: Interior Concrete Paint Table).

(Substrate B). For hiding imperfections in new concrete ceilings. Do not specify in wet or humid areas or for previously painted surfaces.

(Substrate C). List other high humidity areas requiring enamel finishes. For tile-like finishes, filler materials, and applications, refer to Section 09 96 59 HIGH-BUILD GLAZE COATINGS. These high performance coatings are normally used to meet

exposure-resistant requirements and can be applied
to wood, metal, and concrete substrates.

NOTE: Most products approved by MPI GPS-1-05 are
acceptable for LEED credit, and surpass Green Seal
requirements. Using low-VOC interior products
contributes to the following LEED credit: EQ4.
Include VOC submittal if pursuing this LEED credit,
and coordinate with Section 01 33 29 LEED(tm)
DOCUMENTATION.

DIVISION 3: INTERIOR CONCRETE PAINT TABLE

A. [New and uncoated existing] [and Existing, previously painted] Concrete,
vertical surfaces, not specified otherwise:

1. [Latex

[New; MPI INT 3.1A-G2 (Flat) / Existing; MPI RIN 3.1A-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 44	MPI 44

System DFT: 100 microns 4 mils]

[New; MPI INT 3.1A-G3 (Eggshell) / Existing; MPI RIN 3.1A-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 52	MPI 52

System DFT: 100 microns 4 mils]

[New; MPI INT 3.1A-G5 (Semigloss) / Existing; MPI RIN 3.1A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 54	MPI 54

System DFT: 100 microns 4 mils]]

2. [High Performance Architectural Latex

[New; MPI INT 3.1C-G2 (Flat) / Existing; MPI RIN 3.1J-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 138	MPI 138

System DFT: 100 microns 4 mils]

[New; MPI INT 3.1C-G3 (Eggshell) / Existing; MPI RIN 3.1J-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 139	MPI 139

System DFT: 100 microns 4 mils]

[New; MPI INT 3.1C-G4 (satin) / Existing; MPI RIN 3.1J-G4

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 140	MPI 140

System DFT: 100 microns 4 mils]

[New; MPI INT 3.1C-G5 (Semigloss) / Existing; MPI RIN 3.1J-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 141	MPI 141

System DFT: 100 microns 4 mils]]

3. [Institutional Low Odor / Low VOC Latex

[New; MPI INT 3.1M-G2 (Flat) / Existing; MPI RIN 3.1L-G2 (Flat)

Primer:	Intermediate:	Topcoat:
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DIVISION 3: INTERIOR CONCRETE PAINT TABLE

MPI 50 MPI 144 MPI 144
System DFT: 100 microns 4 mils]

[New; MPI INT 3.1M-G3 (Eggshell) / Existing; MPI RIN 3.1L-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 50 MPI 145 MPI 145
System DFT: 100 microns 4 mils]

[New; MPI INT 3.1M-G4 (satin)/ Existing; MPI RIN 3.1L-G4
Primer: Intermediate: Topcoat:
MPI 50 MPI 146 MPI 146
System DFT: 100 microns 4 mils]

[New; MPI INT 3.1M-G5 (Semigloss) / Existing; MPI RIN 3.1L-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 50 MPI 147 MPI 147
System DFT: 100 microns 4 mils]]

B. Concrete ceilings, uncoated:

1. [Latex Aggregate
MPI INT 3.1N
Primer: Intermediate: Topcoat:
N/A N/A MPI 42
System DFT: Per Manufacturer

Texture - [Fine] [Medium] [Coarse]. Surface preparation, number of coats, and primer in accordance with manufacturer's instructions.
Topcoat: Coating to match adjacent surfaces.]

C. [New and uncoated existing] [and Existing, previously painted] Concrete in [toilets], [food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [_____] [and other high-humidity areas] not otherwise specified except floors:

1. [Waterborne Light Industrial Coating
[New; MPI INT 3.1L-G3(Eggshell) / Existing; MPI RIN 3.1C-G3(Eggshell)
Primer: Intermediate: Topcoat:
MPI 151 MPI 151 MPI 151
System DFT: 120 microns 4.8 mils]

[New; MPI INT 3.1L-G5(Semigloss) / Existing; MPI RIN 3.1C-G5(Semigloss)
Primer: Intermediate: Topcoat:
MPI 153 MPI 153 MPI 153
System DFT: 120 microns 4.8 mils]

[New; MPI INT 3.1L-G6(Gloss) / Existing; MPI RIN 3.1C-G6(Gloss)
Primer: Intermediate: Topcoat:
MPI 154 MPI 154 MPI 154
System DFT: 120 microns 4.8 mils]]
2. [Alkyd
[New; MPI INT 3.1D-G3 (Eggshell) / Existing; RIN 3.1D-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 50 MPI 51 MPI 51
System DFT: 112 microns 4.5 mils]

DIVISION 3: INTERIOR CONCRETE PAINT TABLE

[MPI INT 3.1D-G5 (Semigloss) / Existing; RIN 3.1D-G5 (Semigloss)

Primer: Intermediate: Topcoat:

MPI 50 MPI 47 MPI 47

System DFT: 112 microns 4.5 mils]

[MPI INT 3.1D-G6 (Gloss) / Existing; RIN 3.1D-G6 (Gloss)

Primer: Intermediate: Topcoat:

MPI 50 MPI 48 MPI 48

System DFT: 112 microns 4.5 mils]]

3. [Epoxy

New; MPI INT 3.1F-G6 (Gloss) / Existing; MPI RIN 3.1E-G6 (Gloss)

Primer: Intermediate: Topcoat:

MPI 77 MPI 77 MPI 77

System DFT: 100 microns 4 mils

Note: Primer may be reduced for penetration per manufacturer's instructions.]

D. [New and uncoated existing] [and Existing, previously painted] concrete walls and bottom of swimming pools:

1. [Chlorinated Rubber

Primer: Intermediate: Topcoat:

SSPC Paint 18 SSPC Paint 18 SSPC Paint 18

System DFT: Per Manufacturer

Note: Primer may be reduced for penetration per manufacturer's instructions.]

2. [Epoxy

New; MPI INT 3.1F / Existing; MPI RIN 3.1E

Primer: Intermediate: Topcoat:

MPI 77 MPI 77 MPI 77

System DFT: 100 microns 4 mils

Note: Primer may be reduced for penetration per manufacturer's instructions.]

E. [[New and uncoated existing] [and Existing, previously painted] concrete floors in following areas [_____]:

1. [Latex Floor Paint

New; MPI INT 3.2A-G2 (Flat) / Existing; MPI RIN 3.2A-G2 (Flat)

Primer: Intermediate: Topcoat:

MPI 60 MPI 60 MPI 60

System DFT: 125 microns 5 mils]

2. [Alkyd Floor Paint

New; MPI INT 3.2B-G2 (Flat) / Existing; MPI RIN 3.2B-G2 (Flat)

Primer: Intermediate: Topcoat:

MPI 59 MPI 59 MPI 59

System DFT: 125 microns 5 mils]

3. [Epoxy

New; MPI INT 3.2C-G6 (Gloss) / Existing; MPI RIN 3.2C-G6 (Gloss)

Primer: Intermediate: Topcoat:

MPI 77 MPI 77 MPI 77

DIVISION 3: INTERIOR CONCRETE PAINT TABLE

System DFT: 125 microns 5 mils]

Note: Primer may be reduced for penetration per manufacturer's instructions.]

NOTE: (Division 4: Interior Concrete Masonry Units Paint Table).

Use MPI 4 or MPI 116 block filler if smooth surface is required on CMU surfaces.

(Substrate C). List other high humidity areas requiring enamel finishes. For tile-like finishes, filler materials, and applications, refer to Section 09 96 59 HIGH-BUILD GLAZE COATINGS. These high performance coatings are normally used to meet exposure-resistant requirements and can be applied to wood, metal, and concrete substrates.

DIVISION 4: INTERIOR CONCRETE MASONRY UNITS PAINT TABLE

A. New [and uncoated Existing] Concrete masonry:

1. [High Performance Architectural Latex

[MPI INT 4.2D-G2 (Flat)

Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 138	MPI 138
System DFT: 275 microns 11 mils]			

[MPI INT 4.2D-G3 (Eggshell)

Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 139	MPI 139
System DFT: 275 microns 11 mils]			

[MPI INT 4.2D-G4 (Satin)

Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 140	MPI 140
System DFT: 275 microns 11 mils]			

[MPI INT 4.2D-G5 (Semigloss)

Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 141	MPI 141
System DFT: 275 microns 11 mils]			

Fill all holes in masonry surface]

2. [Institutional Low Odor / Low VOC Latex

[New; MPI INT 4.2E-G2 (Flat)

Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 144	MPI 144
System DFT: 100 microns 4 mils]			

[New; MPI INT 4.2E-G3 (Eggshell)

Filler	Primer:	Intermediate:	Topcoat:
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DIVISION 4: INTERIOR CONCRETE MASONRY UNITS PAINT TABLE

MPI 4	N/A	MPI 145	MPI 145
System DFT: 100 microns 4 mils]			
[New; MPI INT 4.2E-G4 (Satin)			
Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 146	MPI 146
System DFT: 100 microns 4 mils]			
[New; MPI INT 4.2E-G5 (Semigloss)			
Filler	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 147	MPI 147
System DFT: 100 microns 4 mils]]			

B. Existing, previously painted Concrete masonry:

1. [High Performance Architectural Latex
[MPI RIN 4.2K-G2 (Flat)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 138 MPI 138
System DFT: 112 microns 4.5 mils]

[MPI RIN 4.2K-G3 (Eggshell)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 139 MPI 139
System DFT: 112 microns 4.5 mils]

[MPI RIN 4.2K-G4
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 140 MPI 140
System DFT: 112 microns 4.5 mils]

[MPI RIN 4.2K-G5 (Semigloss)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 141 MPI 141
System DFT: 112 microns 4.5 mils]]
2. [Institutional Low Odor / Low VOC Latex
[Existing; MPI RIN 4.2L-G2 (Flat)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 144 MPI 144
System DFT: 100 microns 4 mils]

[Existing; MPI RIN 4.2L-G3 (Eggshell)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 145 MPI 145
System DFT: 100 microns 4 mils]

[Existing; MPI RIN 4.2L-G4 (Satin)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 146 MPI 146
System DFT: 100 microns 4 mils]

[Existing; MPI RIN 4.2L-G5 (Semigloss)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 147 MPI 147
System DFT: 100 microns 4 mils]]

C. New [and uncoated Existing] Concrete masonry units in [toilets],

DIVISION 4: INTERIOR CONCRETE MASONRY UNITS PAINT TABLE

[food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [____], [and other high humidity areas] unless otherwise specified:

1. [Waterborne Light Industrial Coating

[MPI INT 4.2K-G3(Eggshell)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 151	MPI 151
System DFT: 275 microns 11 mils]			

[MPI INT 4.2K-G5(Semigloss)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 153	MPI 153
System DFT: 275 microns 11 mils]			

[MPI INT 4.2K-G6(Gloss)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	N/A	MPI 154	MPI 154
System DFT: 275 microns 11 mils]			

Fill all holes in masonry surface]

2. [Alkyd

[MPI INT 4.2N-G3 (Eggshell)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	MPI 50	MPI 51	MPI 51
System DFT: 300 microns 12 mils]			

[MPI INT 4.2N-G5 (Semigloss)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	MPI 50	MPI 47	MPI 47
System DFT: 300 microns 12 mils]			

[MPI INT 4.2N-G6 (Gloss)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 4	MPI 50	MPI 48	MPI 48
System DFT: 300 microns 12 mils]			

Fill all holes in masonry surface]

3. [Epoxy

MPI INT 4.2G-G6 (Gloss)

Filler:	Primer:	Intermediate:	Topcoat:
MPI 116	N/A	MPI 77	MPI 77
System DFT: 250 microns 10 mils]			

Fill all holes in masonry surface]

D. Existing, previously painted, concrete masonry units in [toilets], [food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [____], [and other high humidity areas] unless otherwise specified:

1. [Waterborne Light Industrial Coating

[MPI RIN 4.2G-G3(Eggshell)

Spot Primer:	Intermediate:	Topcoat:
MPI 151	MPI 151	MPI 151
System DFT: 112 microns 4.5 mils]		

DIVISION 4: INTERIOR CONCRETE MASONRY UNITS PAINT TABLE

[MPI RIN 4.2G-G5(Semigloss)
Spot Primer: Intermediate: Topcoat:
MPI 153 MPI 153 MPI 153
System DFT: 112 microns 4.5 mils]

[MPI RIN 4.2G-G6(Gloss)
Spot Primer: Intermediate: Topcoat:
MPI 154 MPI 154 MPI 154
System DFT: 112 microns 4.5 mils]]

2. [Alkyd

[MPI RIN 4.2C-G3 (Eggshell)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 51 MPI 51
System DFT: 112 microns 4.5 mils]

[MPI RIN 4.2C-G5 (Semigloss)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 47 MPI 47
System DFT: 112 microns 4.5 mils]

[MPI RIN 4.2C-G6 (Gloss)
Spot Primer: Intermediate: Topcoat:
MPI 50 MPI 48 MPI 48
System DFT: 112 microns 4.5 mils]]

3. [Epoxy

[MPI RIN 4.2D-G6 (Gloss)
Spot Primer: Intermediate: Topcoat:
MPI 77 MPI 77 MPI 77
System DFT: 125 microns 5 mils]

NOTE: (DIVISION 5: INTERIOR METAL, FERROUS AND
NON-FERROUS PAINT TABLE)

(Substrate C). List other high humidity areas
requiring enamel finishes. For tile-like finishes,
filler materials, and applications, refer to Section
09 96 59 HIGH-BUILD GLAZE COATINGS. These high
performance coatings are normally used to meet
exposure-resistant requirements and can be applied
to wood, metal, and concrete substrates.

(Substrate F, G, and H). Heat Resistant Paints may
require a high heat cure cycle to achieve proper
cure. Curing requirements should be determined
before specifying so that the supplier will be aware
of requirements.

(Substrate F and G). Consider hot dip galvanizing,
aluminum metallizing, and zinc metallizing
alternatives to the specified coating systems.

(Substrate H). Consider aluminum metallizing
alternative to the specified coating system.

DIVISION 5: INTERIOR METAL, FERROUS AND NON-FERROUS PAINT TABLE

INTERIOR STEEL / FERROUS SURFACES

A. Metal, [Mechanical,] [Electrical,] [Fire extinguishing sprinkler systems including valves, conduit, hangers, supports,][Surfaces adjacent to painted surfaces (Match surrounding finish),] [exposed copper piping,] [and miscellaneous metal items] not otherwise specified except floors, hot metal surfaces, and new prefinished equipment:

1. [High Performance Architectural Latex

[MPI INT 5.1R-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 138	MPI 138
System DFT: 125 microns 5 mils]		

[MPI INT 5.1R-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 139	MPI 139
System DFT: 125 microns 5 mils]		

[MPI INT 5.1R-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 141	MPI 141
System DFT: 125 microns 5 mils]]		

2. [Alkyd

[MPI INT 5.1E-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 49	MPI 49
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1E-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 51	MPI 51
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1E-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 47	MPI 47
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1E-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 48	MPI 48
System DFT: 131 microns 5.25 mils]]		

B. Metal floors (non-shop-primed surfaces or non-slip deck surfaces) with non-skid additive (NSA), load at manufacturer's recommendations.:

1. [Alkyd Floor Paint

MPI INT 5.1U-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 27	MPI 27 (plus NSA)
System DFT: 131 microns 5.25 mils]		

2. [Epoxy

INTERIOR STEEL / FERROUS SURFACES

MPI INT 5.1L-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 101	MPI 77	MPI 77 (plus NSA)
System DFT: 131 microns 5.25 mils]		

- C. Metal in [toilets], [food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [____], [and other high-humidity areas] not otherwise specified except floors, hot metal surfaces, and new prefinished equipment:

1. [Alkyd

[MPI INT 5.1E-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 51	MPI 51
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1E-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 47	MPI 47
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1E-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 48	MPI 48
System DFT: 131 microns 5.25 mils]]		

2. [Alkyd

[MPI INT 5.1T-G3 (Eggshell) For hand tool cleaning

Primer:	Intermediate:	Topcoat:
MPI 23	MPI 51	MPI 51
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1T-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 23	MPI 47	MPI 47
System DFT: 131 microns 5.25 mils]		

[MPI INT 5.1T-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 23	MPI 48	MPI 48
System DFT: 131 microns 5.25 mils]]		

- D. Ferrous metal in concealed damp spaces or in exposed areas having unpainted adjacent surfaces as follows: [____]

1. [Aluminum Paint

MPI INT 5.1M

Primer:	Intermediate:	Topcoat:
MPI 79	MPI 1	MPI 1
System DFT: 106 microns 4.25 mils]		

- E. Miscellaneous non-ferrous metal items not otherwise specified except floors, hot metal surfaces, and new prefinished equipment. Match surrounding finish:

1. [High Performance Architectural Latex

[MPI INT 5.4F-G2 (Flat)

INTERIOR STEEL / FERROUS SURFACES

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 138	MPI 138
System DFT: 125 microns 5 mils]		

[MPI INT 5.4F-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 139	MPI 139
System DFT: 125 microns 5 mils]		

[MPI INT 5.4F-G4 (Satin)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 140	MPI 140
System DFT: 125 microns 5 mils]		

[MPI INT 5.4F-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 141	MPI 141
System DFT: 125 microns 5 mils]]		

2. [Alkyd

[MPI INT 5.4J-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 49	MPI 49
System DFT: 125 microns 5 mils]		

[MPI INT 5.4J-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 51	MPI 51
System DFT: 125 microns 5 mils]		

[MPI INT 5.4J-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 47	MPI 47
System DFT: 125 microns 5 mils]		

[MPI INT 5.4J-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 95	MPI 48	MPI 48
System DFT: 125 microns 5 mils]]		

F. Hot metal surfaces [including smokestacks] subject to temperatures up to 205 degrees C 400 degrees F:

1. [Heat Resistant Enamel

MPI INT 5.2A

Primer:	Intermediate:	Topcoat:
MPI 21	Surface preparation and number of coats per manufacturer's instructions.	
System DFT: Per Manufacturer]		

G. Ferrous metal subject to high temperature, up to 400 degrees C 750 degrees F:

1. [Inorganic Zinc Rich Coating

MPI INT 5.2C

Primer:	Intermediate:	Topcoat:
MPI 19	Surface preparation and number of coats per	

INTERIOR STEEL / FERROUS SURFACES
manufacturer's instructions.
System DFT: Per Manufacturer]

2. [Heat Resistant Aluminum Paint
MPI INT 5.2B (Aluminum Finish)
Primer: Intermediate: Topcoat:
MPI 2 Surface preparation and number of coats per
manufacturer's instructions.
System DFT: Per Manufacturer]

H. [New surfaces and] [Existing surfaces] made bare cleaning to
SSPC SP 10/NACE No. 2
subject to temperatures up to 593 degrees C (1100 degrees F):

1. [High Heat Resistant Coating
MPI INT 5.2D
Primer: Intermediate: Topcoat:
MPI 22 Surface preparation and number of coats per
manufacturer's instructions.
System DFT: Per Manufacturer]

NOTE: (DIVISION 6: INTERIOR WOOD PAINT TABLE

(Substrates F and G). List other high humidity
areas requiring enamel finishes. For tile-like
finishes, filler materials, and applications, refer
to Section 09 96 59 HIGH-BUILD GLAZE COATINGS.
These high performance coatings are used for
exposure-resistant requirements and can be applied
to wood, metal, and concrete substrates.

DIVISION 6: INTERIOR WOOD PAINT TABLE

A. New [and Existing, uncoated] Wood and plywood not otherwise specified:

1. [High Performance Architectural Latex
[MPI INT 6.4S-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 39 MPI 139 MPI 139
System DFT: 112 microns 4.5 mils]

[MPI INT 6.4S-G4 (Satin)
Primer: Intermediate: Topcoat:
MPI 39 MPI 140 MPI 140
System DFT: 112 microns 4.5 mils]

[MPI INT 6.4S-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 39 MPI 141 MPI 141
System DFT: 112 microns 4.5 mils]]
2. [Alkyd
[MPI INT 6.4B-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 45 MPI 51 MPI 51

DIVISION 6: INTERIOR WOOD PAINT TABLE
System DFT: 112 microns 4.5 mils]

[MPI INT 6.4B-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 47 MPI 47
System DFT: 112 microns 4.5 mils]

[MPI INT 6.4B-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 48 MPI 48
System DFT: 112 microns 4.5 mils]]

3. [Institutional Low Odor / Low VOC Latex
[New; MPI INT 6.3V-G2 (Flat)
Primer: Intermediate: Topcoat:
MPI 39 MPI 144 MPI 144
System DFT: 100 microns 4 mils]

[New; MPI INT 6.3V-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 39 MPI 145 MPI 145
System DFT: 100 microns 4 mils]

[New; MPI INT 6.3V-G4
Primer: Intermediate: Topcoat:
MPI 39 MPI 146 MPI 146
System DFT: 100 microns 4 mils]

[New; MPI INT 6.3V-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 39 MPI 147 MPI 147
System DFT: 100 microns 4 mils]]

B. Existing, previously painted Wood and plywood not otherwise specified:

1. [High Performance Architectural Latex
[MPI RIN 6.4B-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 46 MPI 139 MPI 139
System DFT: 1123 microns 4.5 mils]

[MPI RIN 6.4B-G4 (Satin)
Primer: Intermediate: Topcoat:
MPI 46 MPI 140 MPI 140
System DFT: 112 microns 4.5 mils]

[MPI RIN 6.4B-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 46 MPI 141 MPI 141
System DFT: 112 microns 4.5 mils]]

2. [Alkyd
[MPI RIN 6.4C-G3 (Eggshell)
Primer: Intermediate: Topcoat:
MPI 46 MPI 51 MPI 51
System DFT: 112 microns 4.5 mils]

[MPI RIN 6.4C-G5 (Semigloss)

DIVISION 6: INTERIOR WOOD PAINT TABLE

Primer:	Intermediate:	Topcoat:
MPI 46	MPI 47	MPI 47
System DFT: 112 microns 4.5 mils]		

[MPI RIN 6.4C-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 46	MPI 48	MPI 48
System DFT: 112 microns 4.5 mils]]		

3. [Institutional Low Odor / Low VOC Latex

[Existing; MPI RIN 6.4D-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 39	MPI 144	MPI 144
System DFT: 100 microns 4 mils]		

[Existing; MPI RIN 6.4D-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 39	MPI 145	MPI 145
System DFT: 100 microns 4 mils]		

[Existing; MPI RIN 6.4D-G4

Primer:	Intermediate:	Topcoat:
MPI 39	MPI 146	MPI 146
System DFT: 100 microns 4 mils]		

[Existing; MPI RIN 6.4D-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 39	MPI 147	MPI 147
System DFT: 100 microns 4 mils]]		

C. New [and Existing, previously finished or stained] Wood and Plywood, except floors; natural finish or stained:

1. [Natural finish, oil-modified polyurethane

[New; MPI INT 6.4J-G4 / Existing; MPI RIN 6.4L-G4

Primer:	Intermediate:	Topcoat:
MPI 57	MPI 57	MPI 57
System DFT: 100 microns 4 mils]		

[New; MPI INT 6.4J-G6 (Gloss) / Existing; MPI RIN 6.4L-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 56	MPI 56	MPI 56
System DFT: 100 microns 4 mils]]		

2. [Stained, oil-modified polyurethane

[New; MPI INT 6.4E-G4 / Existing; MPI RIN 6.4G-G4

Stain:	Primer:	Intermediate:	Topcoat:
MPI 90	MPI 57	MPI 57	MPI 57
System DFT: 100 microns 4 mils]			

[New; MPI INT 6.4E-G6 (Gloss) / Existing; MPI RIN 6.4G-G6 (Gloss)

Stain:	Primer:	Intermediate:	Topcoat:
MPI 90	MPI 56	MPI 56	MPI 56
System DFT: 100 microns 4 mils]]			

3. [Stained, Moisture Cured Urethane

[New; MPI INT 6.4V-G2 (Flat) / Existing; MPI RIN 6.4V-G2 (Flat)

Stain:	Primer:	Intermediate:	Topcoat:
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DIVISION 6: INTERIOR WOOD PAINT TABLE

MPI 90	MPI 71	MPI 71	MPI 71
System DFT: 100 microns 4 mils]			
[New; MPI INT 6.4V-G6 (Gloss) / Existing; MPI RIN 6.4V-G6 (Gloss)			
Stain:	Primer:	Intermediate:	Topcoat:
MPI 90	MPI 31	MPI 31	MPI 31
System DFT: 100 microns 4 mils]]			

D. New [and Existing, previously finished or stained] Wood Floors; Natural finish or stained:

1. [Natural finish, oil-modified polyurethane
New; MPI INT 6.5C-G6 (Gloss) / Existing; MPI RIN 6.5C-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 56 MPI 56 MPI 56
System DFT: 100 microns 4 mils]
2. [Natural finish, Moisture Cured Polyurethane
New; MPI INT 6.5K-G6 (Gloss) / Existing; MPI RIN 6.5D-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 31 MPI 31 MPI 31
System DFT: 100 microns 4 mils]
3. [Stained, oil-modified polyurethane
New; MPI INT 6.5B-G6 (Gloss) / Existing; MPI RIN 6.5B-G6 (Gloss)
Stain: Primer: Intermediate: Topcoat:
MPI 90 MPI 56 MPI 56 MPI 56
System DFT: 100 microns 4 mils]
4. [Stained, Moisture Cured Polyurethane
New; MPI INT 6.5J-G6 (Gloss) / Existing; MPI RIN 6.5L-G6 (Gloss)
Stain: Primer: Intermediate: Topcoat:
MPI 90 MPI 31 MPI 31 MPI 31
System DFT: 100 microns 4 mils]

E. New [and Existing, previously coated] Wood floors; pigmented finish:

1. [Latex Floor Paint
[New; MPI INT 6.5G-G2 (Flat) / Existing; MPI RIN 6.5J-G2 (Flat)
Primer: Intermediate: Topcoat:
MPI 45 MPI 60 MPI 60
System DFT: 112 microns 4.5 mils]

[New; MPI INT 6.5G-G6 (Gloss) / Existing; MPI RIN 6.5J-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 68 MPI 68
System DFT: 1123 microns 4.5 mils]]
2. [Alkyd Floor Paint
[New; MPI INT 6.5A-G2 (Flat) / Existing; MPI RIN 6.5A-G2 (Flat)
Primer: Intermediate: Topcoat:
MPI 59 MPI 59 MPI 59
System DFT: 112 microns 4.5 mils]

[New; MPI INT 6.5A-G6 (Gloss) / Existing; MPI RIN 6.5A-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 27 MPI 27 MPI 27
System DFT: 112 microns 4.5 mils]]

DIVISION 6: INTERIOR WOOD PAINT TABLE

F. New [and Existing, uncoated] wood surfaces in [toilets], [food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [_____] [and other high humidity areas] not otherwise specified.:

1. [As specified in Section 09 96 59 HIGH-BUILD GLAZE COATINGS.]

2. [Waterborne Light Industrial
[MPI INT 6.3P-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 153 MPI 153
System DFT: 112 microns 4.5 mils]

[MPI INT 6.3P-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 154 MPI 154
System DFT: 112 microns 4.5 mils]]

3. [Alkyd
[MPI INT 6.3B-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 47 MPI 47
System DFT: 112 microns 4.5 mils]

[MPI INT 6.3B-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 48 MPI 48
System DFT: 112 microns 4.5 mils]]

G. Existing, previously painted wood surfaces in [toilets], [food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [_____] [and other high humidity areas] not otherwise specified:

1. [As specified in Section 09 96 59 HIGH-BUILD GLAZE COATINGS.]

2. [Waterborne Light Industrial Coating
[MPI RIN 6.3P-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 46 MPI 153 MPI 153
System DFT: 112 microns 4.5 mils]

[MPI RIN 6.3P-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 46 MPI 154 MPI 154
System DFT: 112 microns 4.5 mils]]

3. [Alkyd
[MPI RIN 6.3B-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 46 MPI 47 MPI 47
System DFT: 112 microns 4.5 mils]

[MPI RIN 6.3B-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 46 MPI 48 MPI 48
System DFT: 112 microns 4.5 mils]]

DIVISION 6: INTERIOR WOOD PAINT TABLE

H. New [and Existing, previously finished or stained] Wood Doors; Natural Finish or Stained:

1. [Natural finish, oil-modified polyurethane
[New; MPI INT 6.3K-G4 / Existing; MPI RIN 6.3K-G4
Primer: Intermediate: Topcoat:
MPI 57 MPI 57 MPI 57
System DFT: 100 microns 4 mils]

[New; MPI INT 6.3K-G6 (Gloss) / Existing; MPI RIN 6.3K-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 56 MPI 56 MPI 56
System DFT: 100 microns 4 mils]

Note: Sand between all coats per manufacturers recommendations.]

2. [Stained, oil-modified polyurethane
[New; MPI INT 6.3E-G4 / Existing; MPI RIN 6.3E-G4
Stain: Primer: Intermediate: Topcoat:
MPI 90 MPI 57 MPI 57 MPI 57
System DFT: 100 microns 4 mils]

[New; MPI INT 6.3E-G6 (Gloss) / Existing; MPI RIN 6.3E-G6 (Gloss)
Stain: Primer: Intermediate: Topcoat:
MPI 90 MPI 56 MPI 56 MPI 56
System DFT: 100 microns 4 mils]

Note: Sand between all coats per manufacturers recommendations.]

3. [Stained, Moisture Cured Urethane
[New; MPI INT 6.4V-G2 (Flat) / Existing; MPI RIN 6.4V-G2 (Flat)
Stain: Primer: Intermediate: Topcoat:
MPI 90 MPI 71 MPI 71 MPI 71
System DFT: 100 microns 4 mils]

[New; MPI INT 6.4V-G6 (Gloss) / Existing; MPI RIN 6.4V-G6 (Gloss)
Stain: Primer: Intermediate: Topcoat:
MPI 90 MPI 31 MPI 31 MPI 31
System DFT: 100 microns 4 mils]

Note: Sand between all coats per manufacturers recommendations.]

I. New [and Existing, uncoated] Wood Doors; Pigmented finish:

1. [Alkyd
[New; MPI INT 6.3B-G5 (Semigloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 47 MPI 47
System DFT: 112 microns 4.5 mils]

[New; MPI INT 6.3B-G6 (Gloss)
Primer: Intermediate: Topcoat:
MPI 45 MPI 48 MPI 48
System DFT: 112 microns 4.5 mils]

Note: Sand between all coats per manufacturers recommendations.]

DIVISION 6: INTERIOR WOOD PAINT TABLE

2. [Pigmented Polyurethane

New; MPI INT 6.1E-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
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MPI 72	MPI 72	MPI 72
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System DFT: 112 microns 4.5 mils

Note: Sand between all coats per manufacturers recommendations.]

J. Existing, previously painted Wood Doors; Pigmented finish:

1. [Alkyd

[New; MPI RIN 6.3B-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
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MPI 46	MPI 47	MPI 47
--------	--------	--------

System DFT: 112 microns 4.5 mils]

[New; MPI RIN 6.3B-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
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MPI 46	MPI 48	MPI 48
--------	--------	--------

System DFT: 112 microns 4.5 mils]

Note: Sand between all coats per manufacturers recommendations.]

NOTE: (DIVISION 9: INTERIOR PLASTER, GYPSUM BOARD,
TEXTURED SURFACES PAINT TABLE).

(Substrate B). List other high humidity areas
requiring enamel finishes. For tile-like finishes,
filler materials, and applications, refer to Section
09 96 59 HIGH-BUILD GLAZE COATINGS. These high
performance coatings are normally used to meet
exposure-resistant requirements and can be applied
to wood, metal, and concrete substrates.

DIVISION 9: INTERIOR PLASTER, GYPSUM BOARD, TEXTURED SURFACES PAINT TABLE

A. New [and Existing, previously painted] [Plaster] [and] [Wallboard] not
otherwise specified:

1. [Latex

[New; MPI INT 9.2A-G2 (Flat) / Existing; RIN 9.2A-G2 (Flat)

Primer:	Intermediate:	Topcoat:
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MPI 50	MPI 44	MPI 44
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System DFT: 100 microns 4 mils]

[New; MPI INT 9.2A-G3 (Eggshell) / Existing; RIN 9.2A-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
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MPI 50	MPI 52	MPI 52
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System DFT: 100 microns 4 mils]

[New; MPI INT 9.2A-G5 (Semigloss) / Existing; RIN 9.2A-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
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MPI 50	MPI 54	MPI 54
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System DFT: 100 microns 4 mils]]

2. [High Performance Architectural Latex - High Traffic Areas

DIVISION 9: INTERIOR PLASTER, GYPSUM BOARD, TEXTURED SURFACES PAINT TABLE

[New; MPI INT 9.2B-G2 (Flat) / Existing; MPI RIN 9.2B-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 138	MPI 138

System DFT: 100 microns 4 mils]

[New; MPI INT 9.2B-G3 (Eggshell) / Existing; MPI RIN 9.2B-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 139	MPI 139

System DFT: 100 microns 4 mils]

[New; MPI INT 9.2B-G5 (Semigloss) / Existing; MPI RIN 9.2B-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 141	MPI 141

System DFT: 100 microns 4 mils]]

3. [Institutional Low Odor / Low VOC Latex

[New; MPI INT 9.2M-G2 (Flat) / Existing; MPI RIN 9.2M-G2 (Flat)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 144	MPI 144

System DFT: 100 microns 4 mils]

[New; MPI INT 9.2M-G3 (Eggshell) / Existing; MPI RIN 9.2M-G3 (Eggshell)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 145	MPI 145

System DFT: 100 microns 4 mils]

[New; MPI INT 9.2M-G4 (Satin) / Existing; MPI RIN 9.2M-G4 (Satin)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 146	MPI 146

System DFT: 100 microns 4 mils]

[New; MPI INT 9.2M-G5 (Semigloss) / Existing; MPI RIN 9.2M-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 147	MPI 147

System DFT: 100 microns 4 mils]]

B. New [and Existing, previously painted] [Plaster] [and] [Wallboard] in [toilets], [food-preparation], [food-serving], [restrooms], [laundry areas], [shower areas], [areas requiring a high degree of sanitation], [_____] [and other high humidity areas] not otherwise specified.:

1. [Waterborne Light Industrial Coating

New; MPI INT 9.2L-G5 (Semigloss) / Existing; MPI RIN 9.2L-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 153	MPI 153

System DFT: 100 microns 4 mils]

2. [Alkyd

New; MPI INT 9.2C-G5 (Semigloss) / Existing; MPI RIN 9.2C-G5 (Semigloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 47	MPI 47

System DFT: 100 microns 4 mils]

3. [Epoxy

New; MPI INT 9.2E-G6 (Gloss) / Existing; MPI RIN 9.2D-G6 (Gloss)

Primer:	Intermediate:	Topcoat:
MPI 50	MPI 77	MPI 77

System DFT: 100 microns 4 mils]

DIVISION 9: INTERIOR PLASTER, GYPSUM BOARD, TEXTURED SURFACES PAINT TABLE

-- End of Section --