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NAVFAC **IGS-09900 (JUNE 2003)**

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Preparing Activity: LANTNAVFACENGCOM **Based on UFGS-09900**

ITALIAN GUIDE SPECIFICATIONS

Use for ITALIAN projects only

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SECTION 09900

PAINTS AND COATINGS

06/03

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NOTE: This guide specification is issued by the Atlantic Division, Naval Facilities Engineering Command for regional use in Italy.

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NOTE: This guide covers painting surfaces of new and existing construction:

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 painting of:

1. Towers;

2. Pilings;

3. Pavement markings;

4. Items requiring specialized treatment due to peculiar usage;

5. Petroleum storage facilities;

6. Water storage facilities; and

7. Waterfront facilities, except shore-to-ship utility connections.

If such items are in the project they should be included in a separate section or this section should be modified accordingly. This guide generally contains only two types of coating systems, one solvent based and one water based. If different systems are required regionally, or for special needs, modify the guide accordingly.

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NOTE: The top quality paint manufacturers that are present today in the Italian/European market certify their products in accordance with UNI, EN, CEE and ISO Norms. Some of these top quality paint manufacturers refer to ASTM test methods, including them in their technical data sheets. ASTM Standards are not recognized by Italian law. These Italian Guide Specifications include UNI, EN, CEE, ISO Norms and Italian Laws and Decrees.

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NOTE: Comments and suggestion on this specification are welcome and should be directed to the technical proponent of the specification. A listing of the technical proponents, including their organization designation and telephone number, is on the Internet.

Use of electronic communication is encouraged.

Brackets are used in the text to indicate designer choices or locations where text must be supplied by the designer.

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PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 4541	(1995) Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers

EUROPEAN COMMITTEE FOR STANDARDIZATION (CEN)

EN 463	(1994) Protective Clothing for Use against Liquid Chemicals - Test Method:

	Determination of Resistance to Penetration by a Jet of Liquid (JET SET)

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

ISO 6504-1	(1983) Paints and Varnishes - Determination of Hiding Power - Part 1: Kubelka-Munk Method for White and Light-Coloured Paints

ITALIAN NATIONAL INSTITUTE FOR THE UNIFICATION OF STANDARDS (UNI)

UNI EN ISO 3251	(1998) Paints and Varnishes - Determination of Non-Volatile Matter of Paints, Varnishes and Binders for Paints and Varnishes
UNI 8760	(1985) Systems for Continuously Applied Plastic Coatings - Criteria for Technical Information

ITALIAN LAWS AND NORMS

D.L. n. 494 - 14/08	(1996) Implementation of the Instruction 92/57/CEE Concerning the Minimum Safety and Health Requirements to be Accomplished in Temporary or Mobile Work Sites
D.L. n. 626 - 19/09	(1994) Realization of CEE Requirements for Improving Safety and Health of Workers on Work Site
D.M. n. 22 - 5/02	(1997) Realization of CEE Requirements for Disposal of Hazardous Waste Material and Packaging of Waste Material
D.P.R n. 303 - 19/03	(1956) General Norms for Work Hygiene
Law n. 257 - 27/03	(1992) General Norms for the Removal of Asbestos and Related Work Proceedings

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NOTE: VOC (Volatile Organic Compounds): Requirements listed below are Environmental Protection Agency (EPA) standards used in the United States. It is suggested to use these guidlines for slecting paint coatings in Europe. Complaint 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." Confirmed human carcinogens include asbestos, benzene, chromates, free-silica (cyrstalline silica), and coal tar. Suspected human carcinogens include cadmium and certain chromates. Specify new galvanized steel, in appropriate section, to be without hexavalent chromium stain inhibitors.

To assist in selection of systems providing intended protection and appearance, generic types, glosses, and colors are listed in the following table. Where only topcoating for cosmetic purposes is required, a compatible topcoat that hides substrate should be selected.

The classification of paints listed under "Generic Type" is inserted in square brackets since each paint manufacturer in Italy provides its own classification. The specification writer shall describe the Generic Type in accordance with the selected paint manufacturer.

CHARACTERISTICS OF REFERENCED COATING MATERIALS

*Designation Symbol	VOC (g/L) Specified Maximum	VOC (g/L) Typical[a]	Generic Type/ Classification	Gloss	Colors
*(Refer to "Product Types" paragraph for symbol designation).					
AC	250		acrylic emulsion paint, High hiding white Ready mixed colors	flat	high-hiding white white all, ready

CHARACTERISTICS OF REFERENCED COATING MATERIALS

*Designation Symbol	VOC (g/L) Specified Maximum	VOC (g/L) Typical[a]	Generic Type/ Classification	Gloss	Colors
			Medium shade tint base Deep tone tint base		mixed medium base deep
APC		300	oil/alkyd primer		red
HRA		540	silicone or aluminum modified silicone aluminum paint (649 degrees C)		
LF	250		latex paint High hiding white Ready mixed colors	flat	tints white high-hiding white
EA		430	oleoresinous aluminum phenolic aluminum paint		
APR		250	leafing aluminum pigment, paste, [Class B] standard lining	Ready mixed colors	
AES	420		alkyd paint alkyd paint High hiding white High hiding white	gloss semi	many tints white high-hiding

CHARACTERISTICS OF REFERENCED COATING MATERIALS

*Designation Symbol	VOC (g/L) Specified Maximum	VOC (g/L) Typical[a]	Generic Type/ Classification	Gloss	Colors
					white
TC	compl.[b]	370	[Class 1] textured coating interior High hiding white		all
AP	340		alkyd primer		yellow
LPI	250		latex primer	flat	white
SS		250	latex filler		tints white
ST		500	stencil all paint [Class 1] [regular]	low	
			latex urethane	satin	clear
		250	latex stain [Class A] semi-trans-parent [Class B] [opaque]		all
	420		urethane, self-priming	gloss semi flat	all
HRA		480	heat-resisting paint (to 760 Degrees C)	flat	all
EPI			epoxy-		service

CHARACTERISTICS OF REFERENCED COATING MATERIALS

*Designation Symbol	VOC (g/L) Specified Maximum	VOC (g/L) Typical[a]	Generic Type/ Classification	Gloss	Colors
			polyamide primers/paint		colors
	340		Medium shade tint base 3 coat		
ZRP			/20 primer		green
			/21 paint	low	haze gray
EPP			/22 paint	semi	white
			/25 paint	low	dark gray
			/26 paint	low	yellow
			/27 paint	semi	gray
			/28 paint	low	yellow
NCS	340		epoxy non-skid coating, High hiding white roll or trowel Medium shade tint base, roll Composition G, general acrylic emulsion paint		service
	340		High hiding white		colors
			[Class I]	gloss	
			[Class II]	semi	
			[Class III]	low	
			[Class IV]	flat	
AWP	250		acrylic or modified acrylic waterborne primer UNI ISO 8502/2		any

CHARACTERISTICS OF REFERENCED COATING MATERIALS

*Designation Symbol	VOC (g/L) Specified Maximum	Typical[a]	Generic Type/ Classification	Gloss	Colors
PC	340		urethane any coating Ready Mix colors	gloss semi flat	

[a] Compliant materials are generally available from Italian/European suppliers.

[b] Waterborne coatings equivalent to this specification are available.

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1.2 SUBMITTALS

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NOTE:

Submittals must be limited to those necessary for adequate quality control. The importance of an item in the project should be one of the primary factors in determining if a submittal for the item is required.

A "G" following a submittal item indicates that the submittal requires Government approval. Some submittals are already marked with a "G". Only delete an existing "G" if the submittal item is not complex and can be reviewed through the Contractor's Quality Control system. Only add a "G" 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. Recommended codes for Army projects are "RE" for Resident Engineer approval, "ED" for Engineering approval, and "AE" for Architect-Engineer approval.

Codes following the "G" typically are not used for Navy projects.

Submittal items not designated with a "G" are considered as being for information only for Army projects and for Contractor Quality Control approval for Navy projects.

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Submit the following in accordance with section entitled "Submittal Procedures."

SD-03 Product Data

Coating; G

1) Manufacturer's name and address
2) Manufacturer's product number
3) Chemical composition (volume solids, solids by weight, pigment by weight, etc.)
4) For each paint type, include data on block fillers and primers.

Sealant: Submit data on manufacturer and manufacturer's recommended primer.]

SD-07 Certificates

Applicator's qualifications

Evidence of acceptable variation

SD-08 Manufacturer's Instructions

Application instructions

Manufacturer's material safety data sheets

Submit manufacturer's material safety data sheets for coatings, solvents, and other potentially hazardous materials.

The composition of paint coatings and fire and health hazard prevention measures shall be in accordance with D.L. n. 626 - 19/09 and D.P.R n. 303 - 19/03.

[SD-14 Samples

Color G

Texture G

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

1.2.1 Requirement

For each type of coating[, sealant,] or other product furnished:

Submit data from the manufacturer's paint laboratory indicating that the product conforms to requirements of the referenced specification.

1.2.2 Applicator's Qualifications

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

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a. Submit evidence that applicator has satisfactorily applied paint by airless spray at minimum of two sites. Indicate names and locations of sites, and type and design of equipment used, including safety devices.

1.2.3 Evidence of Acceptable Variation

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NOTE: Material substitutions should not be allowed unless the Contractor can prove by comparative analysis that the substitute is in fact as good as or better than the specified material.

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If a product proposed for use does not conform to requirements of the referenced specification, submit for approval to the Contracting Officer, evidence from the paint manufacturer's laboratory that the proposed product is either equal to or better than the product specified. The submittal shall include the following:

a. Identification of the proposed substitute;

b. Reason why the substitution is necessary;

c. A comparative analysis of the specified product and the proposed substitute, including tabulations of the composition of pigment and vehicle;

d. The differences between the specified product and the proposed substitute; and

e. Other information necessary for an accurate comparison of the proposed substitute and the specified product.

1.3 QUALITY ASSURANCE

1.3.1 Qualifications of Airless Spray Applicators

Satisfactory application of paint by airless spray at a minimum of two sites.

1.3.2 Field Samples and Tests

The Government reserves the right to take 0.5 liter one pint samples of paint at random from the products delivered to the job site and test them to verify that the products either conform to the referenced specifications or the approved substitution. Products which do not conform shall be removed from the job site and replaced with new products that conform to the referenced specification or the approved substitution.

1.3.3 Source Limitations

Obtain block fillers, primers and undercoat materials for each coating system from the same manufacturer as the finish coats.

1.4 REGULATORY REQUIREMENTS

1.4.1 Lead Content

Paints containing lead in excess of 0.06 percent by weight of the total non-volatile content (calculated as lead metal) shall not be permitted. Lead-based metal primers in concealed spaces are not acceptable.

1.4.2 Chromate Content

Do not use coatings containing zinc-chromate or strontium-chromate. Zinc-phosphate may be used.

1.4.3 Asbestos Content

Materials shall not contain asbestos.

1.4.4 Mercury Content

Materials shall not contain mercury or mercury compounds.

1.4.5 Silica Sand

The use of free-silica (crystalline silica) as a component of the paint formulation is prohibited.

1.4.6 Human Carcinogens

Materials shall not contain confirmed human carcinogens or suspected human carcinogens.

1.5 PACKAGING, LABELING, AND STORAGE

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. 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.

1.6 SAFETY METHODS

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

1.6.1 Safety Methods Used During Coating Application

Comply with the requirements of "Safety in Paint Application" as defined by D.L. n. 494 - 14/08, D.L. n. 626 - 19/09, and the Contracting Officer.

1.6.2 Toxic Materials

To protect personnel from overexposure to toxic materials, conform to D.M. n. 22 - 5/02, D.L. n. 626 - 19/09, D.P.R n. 303 - 19/03, and to the most stringent guidance of:

a. The chemical manufacturer when using mineral spirits, or other chemicals. Use impermeable gloves, chemical goggles or faceshield, and other recommended protective clothing and equipment to avoid exposure of skin, eyes, and respiratory system. Conduct work in a manner to minimize exposure of building occupants and the general public.

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NOTE: Delete following paragraph if no lead is contained in existing coating systems.
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[b. The appropriate Italian Standard in accordance with the Italian Laws for surface preparation on painted surfaces containing lead. Removal and disposal of coatings which contain lead is specified in Section 13283, "Removal and Disposal of Lead-Containing Paint."]

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NOTE: Delete following paragraph if no asbestos is contained in existing coating systems.
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[c. The appropriate safety standards in accordance with Law n. 257 - 27/03 for surface preparation of painted surfaces containing asbestos. Removal and disposal of coatings which contain asbestos materials is specified in Section 13281, "Engineering Control of Asbestos Containing Materials."]

d. Threshold limit values for chemical substances and physical agents

and biological exposure indices.

e. Manufacturer's material safety data sheets (MSDS).

1.7 ENVIRONMENTAL CONDITIONS

1.7.1 Exterior Coatings

Do not apply coating to surfaces during foggy or rainy weather, or under the following surface temperature conditions:

a. Less than 3 degrees C 5 degrees F above dew point;

b. Below 4 degrees C (for oil-based paints), 10 degrees C (for latex paints or over 35 degrees C), unless approved by the Contracting Officer.

1.7.2 Interior Coatings

Apply coatings when surfaces to be painted are dry and the following surface temperatures can be maintained:

a. Between 18 and 35 degrees C during application of enamels and varnishes;

b. Between 10 and 35 degrees C during application of other coatings.

1.8 COLOR SELECTION

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NOTE: Complete color schedule should be included on drawings.

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NOTE: If the project includes painting of Shore-To-Ship Utility connections, insert:

1. Color Coding For Shore-To-Ship Utility Connections: Paint hose connection fittings and shut-off valves the designated color in accordance with UNI 5634. In addition to color coding provide 50 mm high stenciled letters using black stencil paint, clearly designating service for each connection.

Color Coding for Shore-to-Ship

Utility Connections

Service	Color
Potable Water*	**Green**
Water Provided for Fire Protection**	**Red**
Chilled Water	**Green w/White Stripes**
Oily Waste Water	**Green w/Black Stripes**
Sewer	**No Code Color [Gold]**
Steam	**Green w/Light Blue Stripes**
High Pressure Air	**Red w/Yellow Stripes**
Low Pressure Air	**Red**
Fuel	**Yellow**

*** 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.**

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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.

1.9 LOCATION AND SURFACE TYPE TO BE PAINTED

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NOTE: Drawings should indicate type and extent of work. Specific quantities should not be cited in the specification. Where applicable, indicate:

1. Reputtying and Reglazing: Replacement of [____] linear meter feet of existing putty or glazing compound with new material.

2. Resealing of Existing Exterior Joints:

Replacement of linear meter feet of sealant or calking with new sealant.

3. Removal of Existing Coatings: Removal of [_____] square meter feet of existing coating by methods specified for each substrate material.

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1.9.1 Painting Included

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

a. Surfaces behind portable objects and surface mounted articles readily detachable by removal of fasteners, such as screws and bolts.

b. New factory finished surfaces that require identification or color coding and factory finished surfaces that are damaged during performance of the work.

c. Existing coated surfaces that are damaged during performance of the work.

1.9.2 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, and chases.

c. Steel to be embedded in concrete.

d. Copper, stainless steel, aluminum, brass, and lead except existing coated surfaces.

1.9.3 Exterior Painting

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

1.9.4 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.

1.9.5 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] [; and

(3) New interior ferrous piping under insulation].]

1.9.5.1 [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 of pretreatment primer applied to a minimum dry thickness of 0.0076 mm 0.3 mil, and one coat of zinc molybdate primer applied to a minimum dry film thickness of 0.025 mm 1.0 mil. 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 0.25 mm 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 wide red enamel bands or self-adhering red plastic bands spaced at maximum of 6 meters 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. Provide piping with 50 mm wide red enamel bands or self-adhering red plastic bands spaced at maximum of 6 meters intervals throughout the piping systems.]

1.9.6 Exterior Painting of Site Work Items

Field coat the following items:

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

PART 2 PRODUCTS

2.1 MANUFACTURERS

The following manufacturers provide products that comply with this specification:

Colorificio Sammarinese S.S.
47031 - Repubblica di San Marino
Via del Camerario, 7
Tel.: 0549/905515
Fax : 0549/908453

Max Meyer Duco
Via Comasina, 121
20161 Milano
Tel: 02/6404.1
Fax: 02/64042363
http: www.maxmeyerduco.com

Sikkens S.p.A
AKZO Nobel Coatings
Via Benedetto Croce, 11
20090 Cesano Boscone, Milano
Tel: 02.48605220
Fax: 02.4501250

2.2 MATERIALS

Conform to the materials and standards indicated herein. Paints shall be factory-manufactured and delivered to the job in unbroken containers which shall show the designated name, formula, color, manufacturer's directions, and name of manufacturer, all of which shall be plainly legible at the time of use. Pigmented paints shall be furnished in containers not larger than 20 kilograms. All paints shall be products that have had a minimum of 2 years satisfactory field service. Laboratory tests simulating field

conditions will not be accepted in lieu of actual field results. Job mixed paints will not be permitted.

2.2.1 Material Compatibility

Provide block fillers, primers, undercoats, and finish-coat materials that are compatible with one another and the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.

2.2.2 Material Quality

Provide manufacturer's best-quality paint material of the various coating types specified. Paint material containers not displaying manufacturer's product identification will not be acceptable.

2.3 GENERAL

Determination of non-volatile paint and varnish compounds shall be in accordance with UNI EN ISO 3251.

2.3.1 Condition in Containers

The products shall be thoroughly mixed and ground. It shall not be settled, caked or thickened to such a degree that it cannot be mixed easily with a paddle by stirring to a good uniform brushing consistency.

2.3.2 Color

The color of paint shall match the sample, as approved by the Contracting Officer.

2.3.3 Flexibility

Paint shall show no evidence of cracking, chipping or flaking.

2.3.4 Skinning

Paint shall not skin (form a thin membrane surface at the top of the liquid) within 48 hours after having been placed in a filled closed container.

2.3.5 Odor

The odor of the wet paint at any interval shall not be obnoxious or objectionable.

2.3.6 Working Consistency

Paint shall show easy brushing, good flowing and spreading, and good leveling properties. These properties will be demonstrated on test specimens at the request of the Contracting Officer. Coats that have any noticeable pull under a large brush and that show poor or fair spreading and flowing properties will not be acceptable.

2.3.7 Appearance of Painted Surfaces

Paint shall dry to a uniform, smooth, flat (gloss or semi-gloss, if so indicated in the finish schedule) appearance under ordinary conditions of illumination and wearing. There shall be no laps, skips, highlighted spots or brush marks. Tinted paint shall dry to a uniform color.

2.4 PRODUCT TYPES

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NOTE: Eliminate the Product Types which are not referenced in the edited paint tables at the end of this section.
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SYMBOL — PAINT TYPE, CHARACTERISTICS AND GENERAL USE

AC — Acrylic Emulsion, Flat, Low VOC content for exterior topcoats and previously coated metals and galvanized surfaces with alkyd or latex.

Weight/gallon	1.34 kg/L (11.2 lbs/gal)
Solids by weight	63% ± 1%
Volume of solids	50% ± 1%
Vehicle type	100% Acrylic Latex
Adhesion	ASTM D 4541*
Scrub resistance	Not applicable
Hiding power	ISO 6504-1*

AEE — Enamel, (Acrylic Emulsion), Low Sheen Enamel for Exterior or Interior Wood Floors, Interior Masonry, Wood, Metal or Wallboard Surfaces.

Weight/gallon	1.29 kg/L (10.8 lbs/gal)
Solids by weight	53% ± 1%
Volume of solids	40% ± 1%
Vehicle type	100% Acrylic resin
Adhesion	ASTM D 4541*
Scrub resistance	*
Hiding power	ISO 6504-1(Excellent)

AEG — Alkyd Enamel, Gloss, for interior metal, masonry or wood surfaces.

Weight/gallon	1.16 kg/L (9.7 lbs/gal)
Solids by weight	68% ± 2%
Volume of solids	48% ± 2%
Vehicle type	Alkyd resin
Adhesion	ASTM D 4541*
Scrub resistance	*
Hiding power	ISO 6504-1*

AET — Alkyd Gloss Enamel for exterior metal surface topcoats.

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE
	Weight/gallon 1.16 kg/L (9.7 lbs/gal) Solids by weight 70% ±1% Volume of solids 55% ±1% Vehicle type Alkyd resin Adhesion ASTM D 4541* Scrub resistance * Hiding power ISO 6504-1*
AES	Interior Enamel Acrylic Semi-Gloss, odorless, for interior metal, wood or plaster surfaces. Weight/gallon 1.21 kg/L (10.1 lbs/gal) Solids by weight 42% ±1% Volume of solids 30% ±1% Vehicle type Acrylic Adhesion ASTM D 4541* Scrub resistance * Hiding power ISO 6504-1*
AG	Alkyd Enamel, Gloss, Low VOC content for exterior new steel and galvanized surfaces. Weight/gallon 1.2 kg/L (9.8 lb/gal) Solids by weight 59.9% Volume of solids 43% Vehicle type Alkyd resin (drying oil) solution Adhesion ASTM D 4541* Scrub resistance --- Hiding power ISO 6504-1 VOC 420 g/L (max)
AIT	Alkyd Paint for exterior galvanized surfaces, gloss, intermediate and topcoat. Weight/gallon 1.21 kg/L (10.1 lbs/gal) Solids by weight 72% ±1% Volume of solids 58% ±1% Vehicle type Alkyd resin Adhesion ASTM D 4541* Scrub resistance * Hiding power ISO 6504-1*
AP	Alkyd Zinc-Molybdate Primer for exterior and interior new steel, aluminum and previously coated siding; chromate-free, rust inhibitive. Weight/gallon 1.5 kg/L (11.6 lb/gal) Solids by weight 73% ±2% Volume of solids 52% ±2% Vehicle type Alkyd resin Adhesion ASTM D 4541* Scrub resistance *

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE	
	Hiding power	ISO 6504-1*
	VOC	340 g/L (max)
APC	Alkyd Primer Coating, Lead and Chromate free, Corrosion-Inhibiting, VOC Compliant, for interior metal surfaces.	
	Weight/gallon	1.43 kg/L (11.9 lb/gal)
	Solids by weight	78% ±1%
	Volume of solids	51% ±1%
	Vehicle type	Resin modified, drying oil phthalic alkyd resin
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
	VOC	420 (max)
APR	Aluminum Pigment, Powder and Paste for primer and topcoat of existing roof surfaces previously coated. Exterior metal surfaces of steel, aluminum, galvanized surfaces, wrought iron and metal roof decks.	
	Weight/gallon	1.22 kg/L (10.2 lbs/gal)
	Solids by weight	46%
	Volume of solids	34%
	Vehicle type	Leafing aluminum pigment
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
ASG	Acrylic Waterborne Topcoat, Semi-Gloss for interior and exterior steel and galvanized surfaces.	
	Weight/gallon	1.22 kg/L (10.2 lbs/gal)
	Solids by weight	51% ±2%
	Volume of solids	39% ±2%
	Vehicle type	100% acrylic resin
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
AWG	Acrylic Waterborne Topcoat, Gloss for exterior steel and galvanized surfaces.	
	Weight/gallon	1.26 kg/L (10.5 lbs/gal)
	Solids by weight	76% ±2%
	Volume by solids	66% ±2%
	Vehicle type	Acrylic
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
AWP	Acrylic Waterborne Primer, for interior and exterior metal	

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE

surfaces and galvanized surfaces; spot priming on bare metal.

Weight/gallon	1.22 kg/L (10.2 lbs/gal)
Solids by weight	48% ±2%
Volume of solids	36% ±2%
Vehicle type	Acrylic/modified acrylic copolymer
Adhesion	ASTM D 4541*
Scrub resistance	---
Hiding power	ISO 6504-1*

EA Exterior Aluminum (Ready-Mixed) Primer and Topcoat coatings for existing surfaces previously coated.
Suitable for use on exterior and interior surfaces, in humid or corrosive areas.

Weight/gallon	0.96 kg/L (8 lbs/gal)
Solids by weight	---
Volume of solids	51% ±1%
Vehicle type	Phenolic resin varnish; Oil portion shall consist of a minimum 80% tung oil
Adhesion	ASTM D 4541*
Scrub resistance	*
Hiding power	ISO 6504-1*

EAP Exterior Alkyd Paint, Low VOC, suitable for exterior wood and plywood surfaces.

Weight/gallon	1.43 kg/L
Solids by weight	78% ±1%
Volume of solids	60% ±1%
Vehicle type	Alkyd resin
Adhesion	ASTM D 4541*
Scrub resistance	*
Hiding power	ISO 6504-1*

EFD Enamel; Floor and Deck, gloss. Suitable for concrete, wood or metal.

Weight/gallon	1.23 kg/L (10.3 lbs/gal)
Solids by weight	49% ±2%
Volume of solids	37% ±2%
Vehicle type	Acrylic
Adhesion	ASTM D 4541*
Scrub resistance	*
Hiding power	ISO 6504-1*

EGS Exterior and Interior Silicone Alkyd Copolymer Enamel, Gloss, for galvanized topcoat use.

Weight/gallon	1.15 kg/L (9.6 lbs/gal)
Solids by weight	66% ±2%
Volume of solids	50% ±2%

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE	
	Vehicle type	Silicone alkyd
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
EPI	Epoxy-Polyamide Primer for steel, for exterior spot primer, previously coated steel, intermediate coatings and topcoats, or interior masonry surfaces.	
	Weight/gallon	1.29 kg/L (10.8 lb/gal)
	Solids by weight	70% ±2%
	Volume of solids	56% ±2%
	Vehicle type	Epoxy-polyamide
	Adhesion	ASTM D 4541*
EPP	Epoxy-Polyamide: Primer, (surface tolerant), intermediate and topcoat, for exterior new steel, galvanized surfaces, (Shop or field application), or interior concrete surfaces.	
	Weight/gallon	1.59 kg/L (13.3 lb/gal)
	Solids by weight	81% ±2%
	Volume of solids	65% ±2%
	Vehicle type	High-build catalyzed polyamide/bisphenol
	Adhesion	ASTM D 4541*
EPZ	Exterior Primer Coatings, for galvanized steel, (Zinc Dust-Zinc Oxide).	
	Weight/gallon	1.28 kg/L (10.7 lbs/gal)
	Solids by weight	-
	Volume of solids	51% ±1%
	Vehicle type	Alkyd
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
EWP	Exterior Alkyd Wood Primer.	
	Weight/gallon	1.38 kg/L (11.5 lb/gal)
	Solids by weight	76% ±2%
	Volume of solids	58% ±2%
	Vehicle type	Alkyd
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
HR	Heat-Resisting Paint (232 Degrees C), ethyl silicate inorganic zinc-rich for high temperature exposure of metals.	
	Weight/gallon	8.65kg/L ±0.23kg
	Solids by weight	---
	Volume of solids	65% ±2.0%

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE	
	Vehicle type	Inorganic Zinc-Rich
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
HRA	Heat-Resisting Aluminum Paint (648.9 Degrees C): aluminum coatings for ferrous metals subject to high- temperature conditions.	
	Weight/gallon	3.95 kg/L ±0.11 kg
	Solids by weight	---
	Volume of solids	25% ±2%
	Vehicle type	Silicone aluminum
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
IOS	Interior Oil Stain for Wood.	
	Weight/gallon	0.86-1.12 kg/L (7.2-9.4 lbs/gal)
	Solids by weight	30%-36% ±1%
	Volume of solids	23%-28% ±1%
	Vehicle type	Linseed oil resin
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
LF	Latex Base Paint for Interior, Flat.	
	Weight/gallon	1.42 kg/L (11.9 lbs/gal)
	Solids by weight	55.9%
	Volume of solids	37.3%
	Vehicle type	Acrylic polymer
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
LIG	Interior Latex, Gloss or semi-gloss for metal or concrete masonry surfaces.	
	Weight/gallon	1.24 kg/L (10.4 lbs/gal)
	Solids by weight	48% ±2%
	Volume of solids	35% ±2%
	Vehicle type	Acrylic
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
LP	Latex Primer for exterior steel surfaces.	
	Weight/gallon	1.38 kg/L (11.5 lb/gal)
	Solids by weight	61% ±2%
	Volume of solids	46% ±2%

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE	
	Vehicle type	100% acrylic emulsion
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
LPI	Interior Latex Primer for Gypsum Wallboard or Plaster.	
	Weight/gallon	1.33 kg/L (11.1 lbs/gal)
	Solids by weight	48% ± 1%
	Volume of solids	31% ± 1%
	Vehicle type	Acrylic resin
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
LSG	Exterior Latex Topcoat, Semi-Gloss, for galvanized surfaces.	
	Weight/gallon	1.22 kg/L (10.2 lb/gal)
	Solids by weight	50% ±2%
	Volume of solids	38% ±2%
	Vehicle type	100% acrylic
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
NCS	Nonskid Coating System, flat sheen, for Interior or exterior metal, wood or concrete surfaces; Roller or squeegee application.	
	Weight/gallon	(11.5 lbs/gal)
	Solids by weight	56.2%
	Volume of solids	38.5%
	Vehicle type	Acrylic
	Adhesion	ASTM D 4541*
	Hiding power	ISO 6504-1*
PC	Polyurethane Coating, Oil-Free, Moisture Curing, for use on interior wood floors, natural finish.	
	Weight/gallon	1.02 kg/L
	Solids by weight	31% ±1%
	Volume of solids	27% ±1%
	Vehicle type	Acrylic polyurethane resin
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
PCI	Primer Coating for Interior Walls and Wood.	
	Weight/gallon	1.38 kg/L (11.6 lb/gal)
	Solids by weight	---
	Volume of solids	39% ±2%
	Vehicle type	Acrylic

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE	
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
PHS	Polyurethane, high solids, high gloss coating for exterior metal topcoats in aggressive environments.	
	Weight/gallon	---
	Solids by weight	76% ±2%
	Volume of solids	65% ±2%
	Vehicle type	Polyester-aliphatic urethane
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Chemical resistance	---
	Hiding power	ISO 6504-1*
SP	Swimming Pool Paint, suitable for immersion in fresh or salt water.	
	Weight/gallon	1.32 kg/L (11.0 lbs/gal)
	Solids by weight	72.2%
	Volume of solids	56.5%
	Vehicle type	Polyamide epoxy
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
SS	Surface Sealer, (Latex Block Filler for unit masonry), flat finish.	
	Weight/gallon	1.62 kg/L (13.5 lbs/gal)
	Solids by weight	---
	Volume of solids	45% ±1%
	Vehicle type	Acrylic
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
STO	Semi-Transparent Oil Stain for Exterior Wood	
	Weight/gallon	0.97 kg/L (8.1 lb/gal)
	Solids by weight	61.4% ±2%
	Volume of solids	55% ±2%
	Vehicle type	Refined natural linseed oil
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
SV	Surface Sealer, suitable for interior (Varnish Type for Wood Doors and Trim)	
	Weight/gallon	0.75 kg/L (6.3 lbs/gal)

SYMBOL	PAINT TYPE, CHARACTERISTICS AND GENERAL USE	
	Solids by weight	36% ±2%
	Volume of solids	29% ±2%
	Vehicle type	Vinyl toluene-modified alkyd resin
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*
TC	Textured Coating (for Interior and Exterior Masonry Surfaces).	
	Weight/gallon	---
	Solids by weight	83% ±2%
	Volume of solids	80% ±2%
	Vehicle type	100% acrylic block filler
	Adhesion	ASTM D 4541*
	Scrub resistance	----
	Hiding power	ISO 6504-1*
VSO	Spar Varnish, Oil, suitable for interior floors, doors and trim. Gloss and semi-gloss.	
	Weight/gallon	0.91 kg/L (7.6 lbs/gal)
	Solids by weight	50% ±2%
	Volume of solids	42% ±2%
	Vehicle type	Alkyd and polyurethane resins
	Adhesion	ASTM D 4541*
	Scrub resistance	*
	Hiding power	ISO 6504-1*
ZRP	Zinc-Rich Primer, Inorganic or Organic. Two-component low VOC level, suitable for steel in humid and corrosive areas.	
	Weight/gallon	3.2 kg/L
	Solids by weight	92% ±2%
	Volume of solids	69% ±2%
	Vehicle type	Metallic zinc (polyamide epoxy)
	Adhesion	ASTM D 4541*
	Scrub resistance	---
	Hiding power	ISO 6504-1*

* Test Standards for "Adhesion", "Scrub Resistance" and "Hiding Power" shall be capable of achieving an "Excellent" performance rating on substrates indicated.

PART 3 EXECUTION

****

NOTE: Exercise caution when deviating from paint systems listed in tables of "PART 3 EXECUTION." Verify compatibility of paint systems substituted.

****

3.1 PROTECTION OF AREAS AND SPACES

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 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.

****

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. Glazing compound for metal sash shall be for face glazing of metal sash. 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.]

3.3 [RESEALING OF EXISTING EXTERIOR JOINTS

****

NOTE: Include this paragraph only for projects involving resealing of existing exterior joints but not including a sealant section. 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, moisture, grease, oil, wax, lacquer, paint, defective backstop, or other matter that would prevent or impair adhesion. Where adequate grooves have not been provided, clean out to a depth of 13 mm and grind to a minimum width of 6 mm without damage to adjoining work. Grinding shall not be required on metal surfaces.

3.3.2 Backstops

In joints more than 13 mm 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 and 38 degrees C when applying sealant.

3.3.5 Exterior Sealant

For joints in vertical surfaces, provide elastomeric joint sealants with movement capabilities of plus or minus 25 percent; non traffic exposure. For joints in horizontal surfaces, provide elastomeric joint sealant. (Subject to pedestrian or vehicular traffic.) 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

Remove dirt, splinters, loose particles, grease, oil, [disintegrated coatings,] and other substances deleterious to coating performance as specified for each substrate.

3.4.1 [Existing Coated Surfaces With No Defects

****
NOTE: Delete if there are no existing surfaces to receive coatings.
****

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. 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 (paint thinner). Allow surface to dry. Wiping shall immediately precede the application of the first coat of any coating, unless specified

otherwise.

b. Sand existing enamel and other glossy surfaces to remove gloss. Brush, and wipe clean with a dry cloth.

c. The requirements specified are minimum. Comply also with the application instructions of the paint manufacturer.]

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].]

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 Cleaning Standard Definitions

****

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. Alternatively, on-site procedures, can determine the generic type of coating films in place.

c. General compatibility considerations and chart listings of expected relationships between binder types are given in Naval Civil Engineering Laboratory Tech Data Sheet 77-19, "Incompatibility of Paints." Consult coating specialist codes regarding questionable compatibilities indicated in the chart.

d. For some maintenance operations, use of standards indicating "Standard Practice for Conducting a Patch Test to Assess Coating Compatibility," may be warranted.

Surface preparation procedures should be compliant with any local or base restrictions. For cleaning or blasting ferrous surfaces, select applicable options from the descriptions below.

****

a. SP1 SOLVENT CLEANING

The removal of all visible oil, grease, soil, drawing and cutting compounds and other soluble contaminants from surfaces; with solvents or commercial cleaners using various methods of cleaning such as wiping, dipping, steam cleaning or vapor degreasing. It is generally conceded that solvent wiping will not positively remove all oil, grease and other soluble contaminants from the surface. Therefore, a more efficient cleaning method such as vapor degreasing or steam cleaning should be employed where coatings will not tolerate any oil, grease ad other soluble contaminants residue. Oil, grease and other soluble contaminants removal by solvent cleaning is included in all other Surface Preparation Specifications. It should be noted that organic solvents may not remove water soluble contaminants such as acid and alkali salts. Such contaminants should be removed using water and/or water-based cleansing agents.

b. SP2 HAND TOOL CLEANING

The removal of all loose mill scale, loose rust, loose paint and other loose detrimental foreign matter by the use of non-power hand tools. Hand tool cleaning will not remove adherent mill scale, rust and paint. Mill scale, rust and paint are considered adherent if they cannot be removed by

lifting with a dull putty knife.

c. SP3 POWER TOOL CLEANING

The removal of all loose mill scale, loose rust, loose paint and other loose detrimental foreign matter by the use of power-assisted hand tools. Power tool cleaning will not remove adherent mill scale, rust and paint. Mill scale, rust and paint are considered adherent if they cannot be removed by lifting with a dull putty knife. Power Tool Cleaning usually provides a slightly higher degree of cleanliness than Hand Tool Cleaning, bur is not regarded as adequate surface preparation for long-term exterior exposure of most high-performance coating systems.

d. SP5 WHITE METAL BLAST CLEANING

The complete removal of all visible oil, grease dirt, dust, mill scale, rust, paint oxides, corrosion products and other foreign mater by compressed air nozzle blasting. Centrifugal wheels or other specified method.

e. SP6 COMMERCIAL BLAST CLEANING

The removal of all visible oil, grease, dirt, dust, mill scale, rust, paint oxides, corrosion products and other foreign matter by compressed air nozzle blasting, centrifugal wheels or other specified method. Discoloration caused by certain stains shall be limited to no more that 33 percent of each unit area. Unit area is approximately 58 cm2.

f. SP7 BRUSH-OFF BLAST CLEANING

The removal of all visible oil, grease, dirt, loose mill scale, loose rust, and loose paint by compressed air nozzle blasting, centrifugal wheels or other specific method. Tightly adherent mill scale, rust and paint may remain on the surface if they cannot be removed by lifting with a dull putty knife.

g. SP8 PICKLING

The complete removal of all rust, mill scale and foreign matter by chemical reaction or electrolysis in acid solutions. The degree of cleanliness is similar to SP5 White Metal Blast Cleaning.

h. SP10 NEAR WHITE METAL BLAST CLEANING

The removal of all visible oil, grease, dirt, dust, mill scale rust, paint, oxides, corrosion products and other foreign matter by compressed air nozzle blasting, centrifugal wheels or other specified method. Discoloration caused by certain stains shall be limited to no more than 5 percent of each unit area. Unit area is approximately 58 cm2.

i. SP11 POWER TOOL CLEANING TO BARE METAL

The removal of all visible oil, grease, dirt, dust, mill scale rust, paint, oxides, corrosion products and other foreign matter. Slight residues of

rust and paint may be left on the lower portion of pits if the original surface is pitted. Differs from SP3 in that it requires more thorough cleaning and surface profile not less than 25 microns. For areas where abrasive blasting is prohibited or not feasible.

j. SP12 SURFACE PREPARATION BY WATER JETTING

Surface preparation and cleaning of steel and other hard materials by high-and-ultra-high pressure water jetting as per EN 463to achieve various degree of surface cleanliness prior to recoating, prepared in accordance with D.L. n. 626 - 19/09. This standard is limited in scope only to the use of water without the addition of solid particles in the stream.

****

NOTE: For cleaning or blasting ferrous surfaces, utilize the table below to select applicable options.

Ferrous Surface Preparation

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 intended performance level**	**SP 10**
Localized corrosion - mill scale, rust	**SP 2, SP 3, or SP 7**		**SP 10**
Extensive deterioration	**SP 6[d]**		**SP 10**
Shop coated Oil, grease, dirt	**[e]**		**SP 10**
Localized	**SP 2, SP 3, or**		**SP 10**

Ferrous Surface Preparation

Blasting/Cleaning Levels[a] - Primer Types/Exposures

	Exposure[b]		
	Mild	Moderate	Severe[c]
damage to be spot repaired	SP 7		
Extensive deterioration	SP 6[d]		SP 10
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 10

[a] If it is not possible to blast, SP 11 is recommended. It is considered equivalent to SP 6. It is also preferred wherever SP 2 or SP 3 are shown in the table.

[b] These are minimum coatings 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 5 is normally preferred for zinc-rich primers, and for extremely severe environments where long-term performance is desired.

[d] Water blast, 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 140.6 kg/cm^2. Second, spot clean, in order of preference by SP 6, SP 11, SP 7, SP 3, or SP 2.

Ferrous Surface Preparation

Blasting/Cleaning Levels[a] - Primer Types/Exposures

Exposure[b]		
Mild	**Moderate**	**Severe[c]**

[g] First, remove chalk and dirt with a non-alkaline detergent solution, and follow with power wash at 140.6 kg/cm^2. Second, spot clean, in order of preference, by SP 10, SP 6, or SP 11.

****

3.5.2 Existing and New Ferrous Surfaces

a. Shop-coated Surfaces and Small Areas That Contain Rust, Mill Scale and Other Foreign Substances: Solvent clean in accordance with SP 1 to remove oil and grease. Where shop coat is missing or damaged, clean according to [SP 2], [SP 3], [SP 6], or [SP 10]. [Brush-off blast remaining surface in accordance with SP 7]; [Water blast between 13.9 and 20.8 MPa, may be used to remove loose coating and other loose materials. Use inhibitor as recommended by coating manufacturer to prevent premature rusting.]

b. Surfaces With More Than 20 Percent Rust, Mill Scale, and Other Foreign Substances: Clean entire surface in accordance with [SP 6] [SP 10].

****

NOTE: Regarding text below, for new or existing uncoated surfaces requiring nonslip coating. For rusted surfaces, modify surface preparation requirements to include near white blast cleaning in accordance with SP 10 prior to coating application.

****

[c. Metal Floor Surfaces to Receive Nonslip Coating: Clean in accordance with SP 10.]

3.5.3 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, SP ...
a. Latex or Alkyd	2,3,6 or Water blast. (7 and 10 may be left in as Contractor options)
b. High Performance (i.e. Epoxy, Urethane, others)	7,10

****

3.5.4 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 SP 1. If the galvanized metal has been passivated or stabilized, the coating shall be completely removed by brush-off abrasive blast or other treatment, or the surface shall be primed with a primer which is specifically recommended by the paint manufacturer for use on passivated or stabilized galvanized steel. For new galvanized steel to be coated, if absence of hexavalent stain inhibitors is not documented, test and remove stain as approved by the Contracting Officer.

****

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 blast between 13.9 to 20.8 MPa, 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 blast to SP 6 degree of cleanliness.] [Spot abrasive blast rusted areas as described for steel in SP 6, and abrasive blast as described for steel in SP 7, to remove existing coating.]

3.5.5 Aluminum, Other Non-Galvanized, and Non-Ferrous Surfaces

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

3.5.6 Terne-Coated Metal Surfaces

Solvent clean surfaces with mineral spirits, paint thinner. Wipe dry with clean, dry cloths.

3.5.7 [Existing Surfaces with a Bituminous Coating

Remove chalk, mildew, and other loose material by washing with a solution of 0.20 liter trisodium phosphate, 0.1 liter household detergent, 1.6 liters 5 percent sodium hypochlorite solution and 4.8 liters of warm water.]

3.6 PREPARATION OF CONCRETE AND CEMENTITIOUS SURFACE

3.6.1 Concrete and Masonry

a. 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 trisodium phosphate, 0.1 liter household detergent, and 6.4 liters 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 trisodium phosphate, 0.1 liter household detergent, 1.6 liters 5 percent sodium hypochlorite solution and 4.8 liters 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 of surface, per workman, at one time.

[(5) Removal of Existing Coatings: For surfaces to receive textured coating, remove existing coatings including soundly adhered coatings if recommended by textured coating manufacturer.]

b. 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.

c. 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 surfaces. 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 or rubbing with a dry cloth prior to application of the first coat material.

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. New plaster to be coated shall have a maximum instrument measured moisture content of 8 percent. 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

Law n. 257 - 27/03. Remove oily stains by solvent cleaning with mineral spirts, paint thinner. 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] Surfaces

New [, Existing Uncoated,] [and] [Existing Coated] Plywood and Wood Surfaces, Except Floors, to Receive Natural Finish:

a. 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 trisodium phosphate, 0.1 liter household detergent, 1.6 liters 5 percent sodium hypochlorite

solution and 4.8 liters of warm water. Rinse thoroughly with fresh water.]

c. 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 shellac varnish, plasticized with 0.14 liters of castor oil per liter. 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 type). 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.

d. Prime Coat For New Exterior Surfaces: Prime coat [wood doors,] [windows,] [frames,] [and] [trim] before wood becomes dirty, warped, [or weathered].

e. Cracks and Nailheads: Set and putty stop nailheads and putty cracks after the prime coat has dried.

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: Traverse floors a minimum of three times with power sander. A rotary disc sander may be used for the final cut, but make other cuts with a drum-type machine. Make first cut across grain or at 45-degree angle. Make succeeding cuts in direction of grain. Use electric edger or hand sander for small areas near walls, in corners, and in small closets. Hand scrape small areas as necessary. Follow scraping by hand sanding in same direction as final cut.

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.

3.8 APPLICATION

3.8.1 Coating Application

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

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Apply coating materials in accordance with field painting procedures. The field painting methods are applicable to all substrates, except as modified herein. Thoroughly work coating materials into joints, crevices, and open spaces. 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. 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.] Continuously applied coatings shall be in accordance with UNI 8760.

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 while the intermediate coat is still tacky, within a few days. Otherwise, apply a mist-coat of 0.02 to 0.05 wet mm of epoxy polyamide paint and allow to cure to tack, a minimum of 4 hours, before topcoating.

e. Floors: [For nonslip surfacing on level floors, as the intermediate coat is applied, cover wet surface completely with almandite garnet. 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 non-skid coating system, applied by roller in accordance with manufacturer's instructions.]

3.8.2 Equipment

Apply coatings with approved brushes, approved rollers, or approved spray equipment, unless specified otherwise. Spray areas made inaccessible to brushing by items such as ducts and other equipment.

3.8.3 Thinning of Paints

Reduce paints to proper consistency by adding fresh paint, except when thinning is mandatory 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.

3.8.4 Coating Systems

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

TABLE	SURFACE MATERIAL TO BE COATED
1	Exterior Metal Surfaces
2	Interior Metal Surfaces
3	Building Systems Surfaces: Interior and Exterior
4	Exterior Concrete, Concrete Masonry, Stucco, and Asbestos-Cement Surfaces
5	Interior Concrete, Concrete Masonry, [Plaster] [and] [Wallboard] Surfaces
6	Exterior Wood [and Plywood] Surfaces
7	Interior Wood and Plywood Surfaces

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 each coat unless specified otherwise in the Tables. Coating thickness where specified, refers to the minimum dry film thickness. The DFT range specified represents minimum peak and valley measurements.

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

a. Primer: Apply specified ferrous metal primer on the same day that surface is cleaned. If flash rusting occurs, re-clean the surface prior to application of primer.

(1) Inaccessible Surfaces: Prior to erection, use two coats of specified primer on metal surfaces that will be inaccessible after erection.

(2) Shop-primed Surfaces: Touch up exposed substrates and damaged coatings to protect from rusting prior to applying field primer.

(3) Surface Previously Coated with Epoxy or Urethane: Apply epoxy-polyamide 0.038 mm DFT immediately prior to application of epoxy or urethane coatings.

(4) Pipes and Tubing: Semitransparent film applied to pipes and tubing at the mill is not to be considered a shop coat. Apply specified ferrous metal primer prior to application of subsequent coats.

(5) 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, water-borne, or 100% acrylic.

b. Apply coatings of Tables 1, 2 and 3. "DFT" means dry film thickness in millimeters (mm).

3.10 COATING SYSTEMS FOR CONCRETE AND CEMENTITIOUS SUBSTRATES

Apply coatings of Tables 4 and 5.

3.11 COATING SYSTEMS FOR WOOD AND PLYWOOD

a. Apply coatings of Tables 6 and 7.

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. 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

Piping Identification, Including Surfaces In Concealed Spaces: Provide in accordance with color code for pipelines, as approved by Contracting Officer. Place stenciling in clearly visible locations. On piping not covered by color code for pipelines, stencil approved names or code letters, in letters a minimum of 13 mm high for piping and a minimum of 50 mm high elsewhere. Stencil arrow-shaped markings on piping to indicate direction of flow. Use 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.

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Guide to Selecting Paints

NOTE: (Table 1, Item A). Use components epoxy polyamide in severe environments or for durable glossy appearance; use latex systems where epoxy polyamides is not allowed.

Use second bracketed option for extremely corrosive environments.

Acrylics are not recommended over epoxies.

(Item B). Use water-borne 100% acrylic over existing alkyd or latex paints. (Do not use vinyl acrylic.) Use 2 component epoxy polyamide with topcoat over existing epoxy systems. Use the first bracket option for geographic areas that do not have harsh environmental conditions and select one of the top coat options provided. Use the second bracket option for areas that have harsh, corrosive environments and select the top coat that is desired.

(Item C). For the selection of top coats, use the first or second bracket option for geographic areas that do not have harsh environmental conditions. Use the third bracket option for areas that have harsh, corrosive environments.

(Item D). Latex primer for steel, alkyd paint and silicone alkyd paint, high gloss or medium gloss can be substituted for the second bracket option. Note that this system is a low gloss (but still not flat) coating whereas alkyd enamel is high gloss. The fourth bracket option is a three-coat alkyd system for unrusted galvanized steel (for weather exposure.)

(Item E). Use water-borne 100% acrylic primer and water-borne acrylic semi-gloss over existing alkyd or latex paints and epoxy-polyamide over existing epoxy systems.

(Item F). In the first bracket option, select appropriate top coat. Use first or second bracket option for geographic areas that do not have harsh environmental conditions. Use third bracket option for areas that have harsh, corrosive environments. The second bracket option is an equivalent preparation coating alternate.

Alkyds are not recommended over exterior galvanized surfaces.

(Item H). Use silicone alkyd copolymer enamel for projects requiring a finish resistant to actinic (sunlight) degradation. Use alkyd gloss enamel optionally with silicone alkyd compolymer gloss enamel for other projects. In the third bracket option, the waterborne system is an equivalent alternate to the second option.

****

TABLE 1

EXTERIOR METAL SURFACES

A. New steel that has been blast-cleaned (up to SP 6):

		DFT (Dry Film Thickness)
[Primer:	Alkyd type, zinc-molybdate (AP)	0.0375 mm DFT
Intermediate:	Enamel, alkyd gloss (AG)	0.0375 mm DFT

TABLE 1

EXTERIOR METAL SURFACES

Topcoat:	Enamel, alkyd gloss (AG)	0.0375 mm DFT]
[Primer:	Epoxy polyamide primer (2 component) (EPI)	0.0625 mm DFT
Intermediate:	Epoxy polyamide (EPP)	0.0625 mm DFT
Topcoat:	Epoxy-polyamide (EPP)	0.0500 mm DFT]

B. Existing steel that has been spot-blasted (up to SP 6):

[Surface previously coated with epoxy:

Spot Primer:	Epoxy-polyamide, primer (2 component) (EPP)	0.075 mm DFT
Intermediate:	N/A	
Topcoat:	[Water-borne, 100% acrylic, semi-gloss (ASG)	0.0375 mm DFT]
	[Water borne acrylic Polyurethane, high solids (PHS)	0.0375 mm DFT]]

C. New [and existing] steel blasted to SP 10:

Primer:	Epoxy polyamide, primer (2 component) (EPI)	0.075 mm DFT
Intermediate:	Epoxy polyamide topcoat (EPP)	0.075 mm DFT
Topcoat:	(2 Coats)	
	[Polyurethane, high solids (PHS	0.050 mm DFT]

TABLE 1

EXTERIOR METAL SURFACES (GALVANIZED)

D. New galvanized surfaces:

[Primer:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Latex 100% acrylic emulsion (AC)	0.0375 mm DFT]
[Primer:	Water-borne, 100% acrylic (AWP)	0.0375 mm DFT
Intermediate:	Acrylic enamel, gloss (AG)	0.0375 mm DFT
Topcoat:	Acrylic enamel, gloss (AG)	0.0375 mm DFT]
[Primer:	Water-borne, 100% acrylic (AWP)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Water-borne, 100% acrylic (ASG)	0.0375 mm DFT]
[Primer:	Zinc Dust-Zinc Oxide Primer (EPZ)	0.050 mm DFT
Intermediate:	White or tinted alkyd (AIT)	0.0375 mm DFT

TABLE 1

EXTERIOR METAL SURFACES (GALVANIZED)

Topcoat:	White or tinted alkyd (AIT)	0.025 mm DFT]

E. Galvanized surfaces with slight coating deterioration; little or no rusting:

[Spot Prime:	Water-borne 100% acrylic (AWP)	0.075 mm DFT
Intermediate:	N/A	
Topcoat:	Water-borne 100 acrylic, semi-gloss (ASG)	0.375 mm DFT]
[Spot Prime:	Epoxy polyamide (EPP)	0.075 mm DFT
Intermediate:	N/A	
Topcoat:	Polyurethane, high solids (PHS)	0.050 mm DFT]
[Spot Prime:	Zinc dust-zinc oxide primer (EPZ)	0.050 mm DFT
Intermediate:	White or tinted alkyd (AIT)	0.0375 mm DFT
Topcoat:	White or tinted alkyd (AIT)	0.025 mm DFT]

F. Galvanized surfaces with severely deteriorated coating or rusting:

[Primer:	Epoxy polyamide primer (2 component) (EPP)	0.075 mm DFT
Intermediate:	Epoxy polyamide topcoat (2 component) (EPP)	0.075 mm DFT
Topcoat:	[Polyurethane, high solids (PHS)	0.0500 mm DFT]]
[Primer:	Epoxy polyamide (2 component)(EPF)	0.075 mm DFT
Intermediate:	Epoxy polyamide (2 component)(EPP)	0.075 mm DFT
Topcoat:	Latex, semi-gloss exterior topcoat (AIT)	0.0500 mm DFT]

TABLE 1

OTHER EXTERIOR METAL SURFACES

G. Existing siding previously coated with bitumen:

[Primer:	Zinc-molybdate alkyd primer (AP)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Latex emulsion (AC)	0.0375 mm DFT]
[Spot Prime on Bare metal:	Water borne, 100% acrylic (AWP)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Water borne, 100% acrylic, semi-gloss (ASG)	0.0375 mm DFT]

H. [Terne-coated and other] Metal, except roof surfaces, not other specified:

[Primer:	Zinc-molybdate alkyd primer (AP)	0.0500 mm DFT
Intermediate:	Enamel, alkyd, gloss (AET)	0.0375 mm DFT
Topcoat:	Enamel, alkyd, gloss (AET)	0.0375 mm DFT]
Primer:	Water borne, 100% acrylic (AWP)	0.0500 mm DFT
(1 coat on shop-primed surfaces; 2 coats on non shop-primed)		
Intermediate:	Enamel, alkyd, gloss (AET)	0.0375 mm DFT
Topcoat:	Enamel, silicone alkyd copolymer, gloss (EGS)	0.0375 mm DFT]
[Primer:	Latex primer (LP)	0.050 mm DFT
Intermediate:	White or tinted alkyd (AIT)	0.0375 mm DFT
Topcoat:	White or colored silicone alkyd; high gloss; medium gloss (EGS)	0.0375mm DFT]

I. Existing roof surfaces previously coated:

[Primer:	Aluminum, ready-mixed primer (EA)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Aluminum, ready-mixed (EA)	0.0375 mm DFT]
[Primer:	Aluminum pigment, powder and paste (APR)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Aluminum, pigment, powder and paste (APR)	0.0375 mm DFT

Note: One kilogram of aluminum paste pigment, powder and paste.]

[Sufficient coats to provide not less than 0.020 mm of finished coating

TABLE 1

OTHER EXTERIOR METAL SURFACES

system.]

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NOTE: (For Table 2). Use latex gloss or semigloss paint for occupied buildings and areas where strong odors would be objectionable. Where allowable, consider use of eggshell or semigloss enamel in lieu of flat paint for areas subject to soiling where gloss is not desired.

(Item A). Generally, for existing surfaces which have alkyd enamel coating, do not specify latex paint which does not bond well to enamel. Also avoid applying latex paint over alkyd primers.

(Items B and C). For new or existing uncoated surfaces requiring non-slip coating, specify non-skid coating system. For rusted surfaces, modify surface preparation to include near white blast cleaning in accordance with SSPC SP 10 prior to coating application.

(Item D). List other high humidity areas requiring enamel finishes. For tile-like finishes, filler materials, and applications refer to Section 09963, "High-Build Glaze Coating." These high performance coatings are normally used to meet exposure-resistant requirements and can be applied to wood, metal, and concrete substrates.

When first bracket option is used, select the alkyd, enamel top coating. When second bracket option is used, select primer and the type finish of intermediate and top coat.

****

TABLE 2

INTERIOR METAL SURFACES

A. Metal (except floors) not otherwise specified:

[Primer (non-shop-primed surfaces):	Alkyd primer, corrosion inhibiting; lead and chromate free (APC)	0.0500 mm DFT
Intermediate:	Enamel, acrylic, semi-gloss interior (AES)	0.0375 mm DFT
Topcoat:	Enamel, acrylic, semi-gloss interior (AES)	0.0375 mm DFT]

[Primer (non-shop-primed surfaces):	Zinc-molybdate,	

TABLE 2

INTERIOR METAL SURFACES

	alkyd primer (AP)	0.0500 mm DFT
Intermediate:	Latex, interior, [Flat] [Eggshell] gloss (LIG)	0.0375 mm DFT
Topcoat:	Latex, interior [Flat] [Eggshell] gloss (LIG)	0.0375 mm DFT]

B. Metal floors (non-shop-primed surfaces):

Primer:	Zinc-molybdate, alkyd prime (AP)	0.0500 mm DFT
Intermediate:	Non-skid coating system (NCS)	0.0375 mm DFT
Topcoat:	Non-skid coating system (NCS)	0.0375 mm DFT

C. Metal floors (non-slip deck surfaces):

Primer:	Epoxy polyamide primer (EPI)	0.0750 mm DFT
Intermediate:	Non-skid coating system; roll or spray (NCS)	0.0375 mm DFT
Topcoat:	Non-skid coating system; roll or spray (NCS)	0.0375 mm DFT

D. Metal in toilets [and other high-humidity areas]:

[Primer:	Zinc-molybdate, alkyd primer (AP)	0.0500 mm DFT
(1 coat on shop-primed surfaces; 2 coats on non-shop-primed)		
Intermediate:	Enamel, interior acrylic, semi-gloss (AES)	0.0375 mm DFT
Topcoat:	Enamel, interior acrylic, semi-gloss (AES)	0.0375 mm DFT
	(or)	
	Enamel, alkyd gloss (AEG)	0.0375 mm DFT]

****

NOTE: (Table 3, Item A). Use silicone alkyd copolymer gloss enamel for projects requiring a finish resistant to actinic (sunlight) degradation. Use alkyd gloss enamel optionally with silicone alkyd copolymer gloss enamel for other projects.

(Item C). Include description of surface areas intended for painting. Select only one of the three paint systems for the desired surface(s). Do not specify vinyl-acrylic.

****

TABLE 3

BUILDING SYSTEMS SURFACES: INTERIOR AND EXTERIOR

Mechanical, electrical, [fire extinguishing sprinkler systems including valves, conduit, hangers, supports,] [exposed copper piping,] and miscellaneous metal items, except hot metal surfaces and new prefinished equipment.

A. Surfaces not adjacent to painted surfaces:

[Primer:	[Zinc-molybdate, alkyd primer (AP)	0.0500 mm DFT]
Intermediate:	[Alkyd industrial enamel, gloss (AET)	0.0375 mm DFT]
	[Enamel, silicone alkyd copolymer, gloss (EGS)	0.0375 mm DFT]
Topcoat:	[Enamel, alkyd industrial gloss (AET)	0.0375 mm DFT]
	[Enamel, silicone alkyd copolymer, gloss (EGS)	0.0375 mm DFT]]
[Primer:	Water borne, 100% acrylic (AWP)	0.0375 mm DFT
Intermediate:	Water borne, 100% acrylic, semi-gloss (ASG)	0.0375 mm DFT
Topcoat:	Water borne, 100% acrylic, semi-gloss (ASG)	0.0375 mm DFT]

B. Surfaces adjacent to painted surfaces: Coating systems as specified. Color of topcoat to match adjacent surfaces: 0.0375 mm DFT for each coat.

C. New [fire extinguishing sprinkler systems,] exposed piping [and equipment]:

[Primer:	Zinc-molybdate primer, alkyd (AP)	0.0375 mm DFT
Intermediate:	Alkyd industrial enamel, gloss (AET)	0.0375 mm DFT
Topcoat:	Alkyd industrial enamel, gloss (AET)	0.0375 mm DFT]
[Primer:	Epoxy-polyamide primer (EPI)	0.0750 mm DFT
Intermediate:	Epoxy-polyamide primer (EPI)	0.0750 mm DFT
Topcoat:	Epoxy-polyamide topcoat (EPI)	0.0750 mm DFT]
[Primer:	Epoxy-polyamide primer (EPI)	0.0750 mm DFT
Intermediate:	Epoxy-polyamide topcoat (EPI)	0.0375 mm DFT
Topcoat:	Polyurethane, high solids (PHS)	0.3750 mm DFT]

D. Hot metal surfaces [including smokestacks] subject to temperatures up to 204 degrees C:

Primer:	N/A	
Intermediate:	Zinc-rich primer (inorganic) (ZRP)	0.0375 mm DFT
Topcoat:	Zinc-rich primer (inorganic) (ZRP)	0.0375 mm DFT

E. [New surfaces and] [Existing surfaces made bare cleaning SP 10 subject to temperatures up to 649 degrees C:

TABLE 3

BUILDING SYSTEMS SURFACES: INTERIOR AND EXTERIOR

Primer:	N/A	
Intermediate:	Aluminum, heat resisting (649 deg C) (HRA)	0.0375 mm DFT
Topcoat:	Aluminum, heat resisting (649 deg C) (HRA)	0.0375 mm DFT]

F. Insulation and surfaces of insulation coverings:

Primer:	N/A	
Intermediate:	Latex (100% acrylic emulsion) (AC)	0.0375 mm DFT
Topcoat:	Latex (100% acrylic emulsion) (AC)	0.0375 mm DFT

G. Cloth and paper covering on insulation:

Primer: Glue size and primer recommended by material manufacturer, one coat each.

Intermediate: N/A

Topcoat: Coating to match adjacent surfaces.

****

NOTE: (Table 4, Item A). For applications requiring resistance to wind-driven rain or resistance to hydrostatic pressure, specify filler materials and applications of Section 09963, "High-Build Glaze Coating."

Fill Coat: Normally new concrete and stucco are sufficiently dense, therefore do not need a fill coat. Concrete masonry and existing concrete that have weathered and become open and porous do need a fill coat.

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.

(Item B). For applications requiring resistance to wind-driven rain or resistance to hydrostatic pressure, specify filler materials and applications of Section 09963, "High-Build Glaze Coatings."

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TABLE 4

EXTERIOR CONCRETE, CONCRETE MASONRY, STUCCO, AND ASBESTOS-CEMENT SURFACES

A. New [and existing] concrete; including soffits but excluding tops of slabs:

[Primer:	[Surface sealer on existing concrete](SS) [NA]	
Intermediate:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT
Topcoat:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT]

[Primer:	As recommended by manufacturer of (textured) coating (exterior masonry)(TC)	
Intermediate:	Textured coating (exterior masonry) (TC)(see note)	
Topcoat:	Textured coating (exterior masonry) (TC)(see note)	

NOTE: Sufficient coats to provide no less than 0.50 mm of finished coating system. Texture: [sand] [coarse]]

B. New [and existing] concrete masonry on uncoated surface:

[Primer:	Surface sealer (latex block filler) on existing (SS)	
Intermediate:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT
Topcoat:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT]

[Primer: As recommended by manufacturer of textured coating (SS)

Intermediate:	Textured coating (exterior masonry) (TC)(see note)	
Topcoat:	Textured coating (exterior masonry) (TC)(see note)	

NOTE: Sufficient coats to provide no less than 0.50 mm of finished coating system. Texture: [sand] [coarse]]

C. New [and existing] stucco:

[Primer:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT]

[Primer:	As recommended by manufacturer of textured coating (exterior masonry)(SS)	
Intermediate:	Textured coating (exterior masonry) (TC)(see note)	
Topcoat:	Textured coating (exterior masonry) (TC)(see note)	

NOTE: Sufficient coats to provide no less than 0.50 mm of finished coating system. Texture: [sand] [coarse]]

D. Asbestos cement:

Primer:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT

TABLE 4

EXTERIOR CONCRETE, CONCRETE MASONRY, STUCCO, AND ASBESTOS-CEMENT SURFACES

Intermediate:	N/A	
Topcoat:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT

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NOTE: (Table 5). Use latex gloss or semigloss paint for occupied buildings and where strong odors would be objectional. Where allowable, consider eggshell or semigloss enamel in lieu of flat paint for areas subject to soiling where gloss is not desired.

(Item A). For existing surfaces with alkyd enamel coating, do not specify latex paint which does not bond well to enamel. Avoid applying latex paint over alkyd primers. For applications requiring resistance to wind-driven rain or hydrostatic pressure, specify filler materials and applications of Section 09963, "High-Build Glaze Coatings."

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

(Item C). List other high humidity areas requiring enamel finishes. For tile-like finishes, filler materials, and applications refer to Section 09963, "High-Build Glaze Coating." These high performance coatings are normally used to meet exposure-resistant requirements and can be applied to wood, metal, and concrete substrates.

Specify rubber paint, on new or uncoated existing surfaces or existing surfaces previously coated with rubber paint.

(Item D). Generally, for existing surfaces with alkyd enamel coating, do not specify latex paint which does not bond well to enamel. Avoid applying latex paint over alkyd primers.

For applications requiring resistance to wind-driven rain or resistance to hydrostatic pressure, specify filler materials and applications of Section 09963, "High-Build Glaze Coatings."

Use (low lustre) eggshell latex, (low luster), in lieu of latex paint (acrylic emulsion) if more soil

resistant finish is desired than flat latex.

Use surface sealer (latex block) filler if smooth surface is required on CMU surfaces.

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TABLE 5

INTERIOR CONCRETE, CONCRETE MASONRY, [PLASTER][AND][WALLBOARD] SURFACES

A. Concrete not specified otherwise, except floors [and ceilings]:

[Primer:	Latex, acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Alkyd enamel [semigloss] (AES)	0.0375 mm DFT]
[Primer:	Latex, gloss (LIG)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Latex, gloss (LIG)	0.0375 mm DFT]
[Primer:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Alkyd enamel, [semigloss] (AES)	0.0375 mm DFT]

B. Concrete ceilings, uncoated:

Primer:	As recommended by manufacturer of textured coating (SS)
Intermediate:	Textured coating, (interior masonry surfaces) (TC)(see note)
Topcoat:	Textured coating, (interior masonry surfaces) (TC)(see note)

NOTE: Sufficient coats to provide no less than 0.50 mm of finished coating system. Texture: [sand] [coarse]]

C. Concrete, except floors, in toilets [and other high humidity areas:]

[Primer:	Latex, 100% acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	Enamel, alkyd, semi-gloss (AES)	0.0375 mm DFT
Topcoat:	Enamel, alkyd, semi-gloss (AES)	0.0375 mm DFT]
[Primer:	Epoxy-polyamide primer (2 component) (EPP)	0.0750 mm DFT
Intermediate:	N/A	
Topcoat:	Epoxy-polyamide topcoat (EPP)	0.0750 mm DFT]
[Primer:	Latex, acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	Latex, gloss (LIG)	0.0375 mm DFT
Topcoat:	Latex, gloss (LIG)	0.0375 mm DFT]

TABLE 5

INTERIOR CONCRETE, CONCRETE MASONRY, [PLASTER][AND][WALLBOARD] SURFACES

[Primer:	Rubber type [gloss] [semi-gloss] (for swimming pools, concrete and masonry) (SP)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	Rubber type [gloss] [semigloss] (for swimming pools, concrete and masonry) (SP)	0.0375 mm DFT]

D. Concrete masonry:

Primer:	Surface sealer (latex block filler) Fill all holes in masonry surfaces (SS)	
[Intermediate:	Latex (100% acrylic emulsion) (AC)	0.0375 mm DFT
Topcoat:	Latex (100% acrylic emulsion) (AC)	0.0375 mm DFT]
[Intermediate:	Latex, gloss (LIG)	0.0375 mm DFT
Topcoat:	Latex, gloss (LIG)	0.0375 mm DFT]
[Intermediate:	Latex (100% acrylic emulsion) (AC)	0.0375 mm DFT
Topcoat:	Alkyd enamel [semigloss] (AES)	0.0375 mm DFT]

E. Concrete masonry in toilets [and high humidity areas]:

[Primer:	Surface sealer (latex block filler) and (SS) latex, acrylic emulsion (AC)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	[Alkyd enamel, semi-gloss (AES)	0.0375 mm DFT]
	[Alkyd enamel, gloss (AEG)	0.0375 mm DFT]
[Primer:	Epoxy polyamide primer (EPI)	0.0750 mm DFT
Intermediate:	N/A	
Topcoat:	Epoxy-polyamide topcoat (EPI)	0.0750 mm DFT]
[Primer:	Latex (100% acrylic emulsion) (AC)	0.0375 mm DFT
Intermediate:	Latex, gloss (LIG)	0.0375 mm DFT
Topcoat:	Latex, gloss (LIG)	0.0375 mm DFT]

F. [Plaster] [and] [Wallboard] not otherwise specified:

[Primer:	Latex primer coating (LPI)	0.0375 mm DFT
Intermediate:	(Same as topcoat)	
Topcoat:	[Latex Flat (LF)	0.0375 mm DFT]
	[Alkyd enamel, semigloss (AES)	0.0375 mm DFT]
	[Latex gloss; [flat][eggshell] (LIG)	0.0375 mm DFT]
[Primer:	Latex primer coating (LPI)	0.0375 mm DFT
Intermediate:	(Same as topcoat)	
Topcoat:	Alkyd enamel, [semigloss (AES)	0.0375 mm DFT]

TABLE 5

INTERIOR CONCRETE, CONCRETE MASONRY, [PLASTER][AND][WALLBOARD] SURFACES

	[flat][eggshell] (LIG)	0.0375 mmDFT]]

G. [Plaster] [and] [Wallboard] in toilets [and other high humidity areas]:

[Primer:	Latex, Primer (interior) (LPI)	0.0375 mm DFT
Intermediate:	(Same as topcoat)	
Topcoat:	[Alkyd enamel, semigloss (AES)	0.0375 mm DFT]
	[Alkyd enamel, gloss (AEG)	0.0375 mmDFT]]
[Primer:	Latex primer (interior) (LPI)	0.0375 mm DFT
Intermediate:	Latex,	
	[semi-gloss][eggshell] (LIG)	0.0375 mm DFT
Topcoat:	Latex,	
	[semi-gloss][eggshell] (LIG)	0.0375 mm DFT]

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NOTE: (Table 6, Item B). Select one of the exterior stains. (Semi transparent oil stain and latex stain for exterior wood surfaces).

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TABLE 6

EXTERIOR WOOD [AND PLYWOOD] SURFACES

A. Wood and plywood, trim, including top, bottom and edges of doors:

[Primer:	Alkyd primer (EWP)	0.0375 mm DFT
Intermediate:	Exterior alkyd, low voc (EAP)	0.0375 mm DFT
Topcoat:	Exterior alkyd, low voc (EAP)	0.0375 mm DFT]
[Primer:	Alkyd primer (EWP)	0.0375 mm DFT
Intermediate:	Latex emulsion (exterior) (AC)	0.0375 mm DFT
Topcoat:	Latex emulsion (exterior) (AC)	0.0375 mm DFT]

B. Uncoated and previously stained wood siding:

Primer:	N/A	
Intermediate:	N/A	
Topcoat:	[Oil stain, semi-transparent, exterior (STO)	0.0375 mm DFT]
	[Latex stain, exterior, wood surfaces; (STO)	
	[(semi-transparent)]	
	[(opaque)]	
	(two coats)]	

TABLE 6

EXTERIOR WOOD [AND PLYWOOD] SURFACES

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NOTE: (Table 7). Use latex gloss or semigloss paint in occupied buildings and where strong odors would be objectional. Where allowable, consider use of eggshell or semigloss enamel in lieu of flat paint in areas subject to soiling, where gloss is not desired.

(Items A and F). For existing surfaces with alkyd enamel coating, do not specify latex paint which does not bond well to enamel. Avoid applying latex paint over alkyd primers.

(Items B thru E). Indicate locations where natural finish is required. Omit stain if a stained finish is not required.

(Item E). If pigmented floor coating is required, use 3 coats of low-VOC compliant acrylic emulsion enamel for exterior, in place of floor and deck enamel.

(Item F). List other high humidity areas requiring enamel finishes. For tile-like finishes, filler materials, and applications refer to Section 09963, "High-Build Glaze Coatings." These high performance coatings are used for exposure-resistant requirements and can be applied to wood, metal, and concrete substrates.

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TABLE 7

INTERIOR WOOD AND PLYWOOD SURFACES

A. Wood and plywood not otherwise specified:

Primer:	[[Surface sealer (varnish type) on softwood plywood (SV)	0.0375 mm DFT][NA]]
Intermediate:	Alkyd enamel, semigloss (AES)	0.0375 mm DFT
Topcoat:	Alkyd enamel, semigloss (AES)	0.0375 mm DFT

B. Wood [except floors], natural finish:

Primer:	N/A	
Intermediate:	Oil stain, Interior (IOS)	0.0375 mm DFT

TABLE 7

INTERIOR WOOD AND PLYWOOD SURFACES

Topcoat:	Varnish, spar, phenolic-resin (3 coats) (VSO)	0.0375 mm DFT

C. Plywood, natural finish:

Primer:	N/A	
Intermediate:	Oil stain, interior (IOS)	0.0375 mm DFT
Topcoat:	Surface sealer, varnish type (SV)	0.0375 mm DFT

D. Wood floors, natural finish:

[Primer:	N/A	
Intermediate:	Oil stain, interior (IOS)	0.0375 mm DFT
Topcoat:	Surface sealer, varnish type (3 coats) (SV)	0.0375 mm DFT]

[Primer:	Polyurethane coating, oil free moisture curing, clear (PC)	0.0375 mm DFT
Intermediate:	Polyurethane coating, oil free moisture curing, clear (PC)	0.0375 mm DFT
Topcoat:	Polyurethane coating, oil free moisture curing, clear (PC)	0.0375 mm DFT

E. Wood floors, pigmented finish

[Primer:	Floor and deck enamel (EFD)	0.0375 mm DFT
Intermediate:	Floor and deck enamel (EFD)	0.0375 mm DFT
Topcoat:	Floor and deck enamel (EFD)	0.0375 mm DFT]

[Primer:	Acrylic emulsion enamel (AEE)	0.0375 mm DFT
Intermediate:	Acrylic emulsion enamel (AEE)	0.0375 mm DFT
Topcoat:	Acrylic emulsion enamel (AEE)	0.0375 mm DFT]

F. Wood surfaces in toilets [and other high humidity areas]:

[As specified in Section 09963, "High-Build Glaze Coatings."]

[Primer:	Interior wood primer coating (PCI)	0.0375 mm DFT
Intermediate:	N/A	
Topcoat:	[Alkyd enamel, semigloss (AES)	0.0375 mm DFT]
	[Alkyd enamel, gloss (AEG)	0.0375 mm DFT]]

G. Natural finish wood doors:

Primer:	Oil stain, interior (one coat) (IOS)
Intermediate:	Surface sealer, varnish type; (one coat); sand with 220 grit (SV)
Topcoat:	Polyurethane, clear coating, oil free, moisture curing (two coats) (PC)

TABLE 7

INTERIOR WOOD AND PLYWOOD SURFACES

-- End of Section --