

SECTION 09 91 23 - INTERIOR PAINTING

PART 1 – GENERAL

PART 1 - 1.01 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes surface preparation and the application of paint systems on interior substrates including but not limited to the following:
 - 1. Concrete floor (**Armor AX25 Siloxane Infused High Gloss Acrylic Sealer**) attached.
 - 2. Concrete masonry units (CMU).
 - 3. Steel.
 - 4. wood

1.3 DEFINITIONS

- A. Gloss Level 1: Not more than 5 units at 60 degrees and 10 units at 85 degrees, according to ASTM D 523.
- B. Gloss Level 2: Not more than 10 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- C. Gloss Level 3: 10 to 25 units at 60 degrees and 10 to 35 units at 85 degrees, according to ASTM D 523.
- D. Gloss Level 4: 20 to 35 units at 60 degrees and not less than 35 units at 85 degrees, according to ASTM D 523.
- E. Gloss Level 5: 35 to 70 units at 60 degrees, according to ASTM D 523.
- F. Gloss Level 6: 70 to 85 units at 60 degrees, according to ASTM D 523.
- G. Gloss Level 7: More than 85 units at 60 degrees, according to ASTM D 523.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product. Include preparation requirements and application instructions.
- B. Samples for Initial Selection: For each type of topcoat product.
- C. Samples for Verification: For each type of paint system and in each color and gloss of topcoat.
 - 1. Submit Samples on rigid backing, 8 inches square.
 - 2. Step coats on Samples to show each coat required for system.
 - 3. Label each coat of each Sample.
 - 4. Label each Sample for location and application area.
- D. Product List: For each product indicated, include the following:
 - 1. Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in schedules.
 - 2. VOC content.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Paint: 5 percent, but not less than 1 gal. of each material and color applied.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.
 - 1. Maintain containers in clean condition, free of foreign materials and residue.
 - 2. Remove rags and waste from storage areas daily.

1.7 FIELD CONDITIONS

- A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.
- B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. [Duron, Inc.](#)
 - 2. [M.A.B. Paints.](#)
 - 3. [PPG Architectural Finishes, Inc.](#)
 - 1. [Sherwin-Williams; Paint Stores Group.](#)

2.2 PAINT, GENERAL

- A. MPI Standards: Provide products that comply with MPI standards indicated and that are listed in its "MPI Approved Products List."
- B. Material Compatibility:
 - 1. Provide materials for use within each paint system that are compatible with one another and substrates indicated, under conditions of service and application as demonstrated by manufacturer, based on testing and field experience.
 - 2. For each coat in a paint system, provide products recommended in writing by manufacturers of topcoat for use in paint system and on substrate indicated.
- C. VOC Content: Products shall comply with VOC limits of authorities having jurisdiction.
 - 1. Flat Paints and Coatings: 50 g/L.
 - 2. Nonflat Paints and Coatings: 150 g/L.
 - 3. Dry-Fog Coatings: 400 g/L.
 - 4. Primers, Sealers, and Undercoaters: 200 g/L.
 - 5. Anticorrosive and Antirust Paints Applied to Ferrous Metals: 250 g/L.
 - 6. Zinc-Rich Industrial Maintenance Primers: 340 g/L.
 - 7. Pretreatment Wash Primers: 420 g/L.
 - 8. Floor Coatings: 100 g/L.
 - 9. Shellacs, Clear: 730 g/L.
 - 10. Shellacs, Pigmented: 550 g/L.

- D. Colors: **As selected by Architect from manufacturer's full range**

2.3 BLOCK FILLERS

- A. Block Filler, Latex, Interior/Exterior: MPI #4.

2.4 PRIMERS/SEALERS

- A. Primer Sealer, Interior, Institutional Low Odor/VOC: MPI #149.
B. Wood-Knot Sealer: Sealer recommended in writing by topcoat manufacturer for use in paint systems indicated.

2.5 METAL PRIMERS

- A. Primer, Rust-Inhibitive, Water Based: MPI #107.

2.6 WATER-BASED PAINTS

- A. Latex, Interior, Institutional Low Odor/VOC, (Gloss Level 3): MPI #145.
B. Latex, Interior, Institutional Low Odor/VOC, Semi-Gloss (Gloss Level 5): MPI #147.

2.7 SOURCE QUALITY CONTROL

- A. Testing of Paint Materials: Owner reserves the right to invoke the following procedure:
1. Owner will engage the services of a qualified testing agency to sample paint materials. Contractor will be notified in advance and may be present when samples are taken. If paint materials have already been delivered to Project site, samples may be taken at Project site. Samples will be identified, sealed, and certified by testing agency.
 2. Testing agency will perform tests for compliance with product requirements.
 3. Owner may direct Contractor to stop applying coatings if test results show materials being used do not comply with product requirements. Contractor shall remove noncomplying paint materials from Project site, pay for testing, and repaint surfaces painted with rejected materials. Contractor will be required to remove rejected materials from previously painted surfaces if, on repainting with complying materials, the two paints are incompatible.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.
- B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:
1. Concrete: 12 percent.
 2. Masonry (Clay and CMU): 12 percent.
 3. Wood: 15 percent
- C. Verify suitability of substrates, including surface conditions and compatibility with existing finishes and primers.
- D. Proceed with coating application only after unsatisfactory conditions have been corrected.
1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A. Comply with manufacturer's written instructions and recommendations in "MPI Manual" applicable to substrates indicated.
- B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.
- C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.
 - 1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.
- D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.
- E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints exceed that permitted in manufacturer's written instructions.
- F. Steel Substrates: Remove rust, loose mill scale, and shop primer, if any. Clean using methods recommended in writing by paint manufacturer.
- G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.
- B. Wood Substrates:
 - 1. Scrape and clean knots, and apply coat of knot sealer before applying primer.
 - 2. Sand surfaces that will be exposed to view, and dust off.
 - 3. Prime edges, ends, faces, undersides, and backsides of wood.
 - 4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dry.

3.3 APPLICATION

- A. Apply paints according to manufacturer's written instructions and to recommendations in "MPI Manual."
 - 1. Use applicators and techniques suited for paint and substrate indicated.
 - 2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
 - 3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
 - 4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
 - 5. Primers specified in painting schedules may be omitted on items that are factory primed or factory finished if acceptable to topcoat manufacturers.
- B. Tint each undercoat a lighter shade to facilitate identification of each coat if multiple coats of same material are to be applied. Tint undercoats to match color of topcoat but provide sufficient difference in shade of undercoats to distinguish each separate coat.

- C. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.
- D. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.
- E. Painting Plumbing, HVAC, Electrical, Communication, and Electronic Safety and Security Work:
 - 1. Paint the following work where exposed in occupied spaces and/or exposed in equipment rooms.
 - a. Equipment, including panelboards.
 - b. Uninsulated metal piping.
 - c. Uninsulated plastic piping.
 - d. Pipe hangers and supports.
 - e. Metal conduit.
 - f. Plastic conduit.
 - g. Duct, equipment, and pipe insulation having cotton or canvas insulation covering or other paintable jacket material.
 - 2. Paint portions of internal surfaces of metal ducts, without liner, behind air inlets and outlets that are visible from occupied spaces.

3.4 FIELD QUALITY CONTROL

- A. Dry Film Thickness Testing: Owner may engage the services of a qualified testing and inspecting agency to inspect and test paint for dry film thickness.
 - 1. Contractor shall touch up and restore painted surfaces damaged by testing.
 - 2. If test results show that dry film thickness of applied paint does not comply with paint manufacturer's written recommendations, Contractor shall pay for testing and apply additional coats as needed to provide dry film thickness that complies with paint manufacturer's written recommendations.

3.5 CLEANING AND PROTECTION

- A. At the end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
- B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.
- C. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Architect, and leave in an undamaged condition.
- D. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.6 INTERIOR PAINTING SCHEDULE

- A. CMU Substrates:
 - 1. Institutional Low-Odor/VOC Latex System:
 - a. Block Filler: Block filler, latex, interior/exterior, MPI #4.
 - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
 - c. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.
 - d. Topcoat: Latex, interior, institutional low odor/VOC, semi-gloss (Gloss Level 4), MPI #147.
- B. Steel Substrates:

1. Institutional Low-Odor/VOC Latex System:
 - a. Prime Coat: Primer, rust-inhibitive, water based MPI #107.
 - b. Intermediate Coat: Latex, interior, institutional low odor/VOC, matching topcoat.
 - c. Topcoat: Latex, interior, institutional low odor/VOC, (Gloss Level 3), MPI #145.
 - d. Topcoat: Latex, interior, institutional low odor/VOC, semi-gloss (Gloss Level 4), MPI #147.
- C. Wood substrates
 1. Institutional Low-odor/VOC Latex System
 - a. Prime Coat: Primer-sealer for interior wood.
 - b. Intermediate Coat: Pre-catalyzed Epoxy, matching topcoat.
 - c. Topcoat: Pre-catalyzed Epoxy



Armor AX25 Siloxane Infused High Gloss Acrylic Sealer

Foundation Armor
3 Howe Drive, Suite 2
Amherst NH 03031
(866) 306-0246
FoundationArmor.com
For Professional Use

PRODUCT DESCRIPTION

The Armor AX25 is a solvent-based siloxane infused high gloss acrylic sealer designed to enhance, seal, and protect concrete, and concrete pavers. It will darken the surface to enhance any dull and faded coloring, protect the surface with a durable high gloss surface film. The Armor AX25 offers superior water repellency benefits making it a perfect choice for areas constantly exposed to water, such as pool decks.

BENEFITS/FEATURES

- ◆ Breathable, UV resistant
- ◆ Reduces deterioration caused by surface abrasion
- ◆ Reduces the formation of mold, mildew, and algae
- ◆ Reduces surface stains
- ◆ Offers superior water repellency benefits
- ◆ Easy to apply, maintain, and recoat
- ◆ Made from US Manufactured non-recycled resins
- ◆ Will darken the surface to make it look wet
- ◆ Can be applied to unsealed surfaces, and surfaces previously sealed with a solvent based acrylic sealer

SUGGESTED APPLICATIONS

- ◆ Poured, broom finished, and stamped concrete.
- ◆ Concrete pavers.
- ◆ Exposed aggregate concrete.
- ◆ Driveways, walkways, patios, and stairs.
- ◆ Salt water and fresh water pool decks.
- ◆ Garage, warehouse, and basement floors.
- ◆ Car ports, pole barns, retail and restaurant floors.

TECHNICAL INFORMATION

Solids.....	25%	Wet Appearance.....	Clear
Drying Time.....	4-6 hours	Dry Appearance.....	High Gloss
Re-Coat Time.....	24 hours	VOC Content.....	<700 VOC
Foot Traffic.....	24 hours	Blush Resistance.....	Good
Wheel Traffic.....	24 - 48 hours	Solvent Resistance.....	Minimal
Application Temp.....	55°F - 85°F	Concrete Adhesion.....	Excellent

COVERAGE

Porous Surfaces: Up to 175 FT²/gallon in one coat.
Smooth Surfaces (once properly prepped): Up to 200-225 FT²/gallon in one coat.

Coverage will vary depending on porosity, surface condition, application method, and the amount of material applied by the applicator. The above coverage rates are estimates and will vary. Two coats are suggested for even coverage and appearance.

COMPLIANCES

- ◆ USDA Compliant

SHELF LIFE

When properly sealed and stored, the shelf life of the Armor AX25 is up to 1 year.

PACKAGING

The Armor AX25 is available in a 16 OZ Sample, 1 Gallon Bottle, 5 Gallon Pail, and 55 Gallon Drum.

APPLICATION INSTRUCTIONS

The Armor AX25 can be applied with a 3/8-1/2" nap roller, or a solvent resistant HVLP sprayer. For a consistent wet look and high gloss finish, apply two coats spaced 24 hours apart.

Time Of Day

The Armor AX25 should only be applied in the early evening when air and surface temperatures are declining, and when the sun is no longer positioned over the surface. To avoid bubbling and hazing, do not apply in the morning or middle of the day.

Surface Preparation

The Armor AX25 should be applied to a completely clean and dry surface. If the surface was cleaned with water or pressure washed prior to application, allow the surface to dry for at least 24 hours before sealing. While pressure washing the surface is typically sufficient, spot treatment may be necessary for deep or older stains.

The Armor AX25 is designed specifically for use on unsealed concrete and concrete paver surfaces, as well as concrete and concrete pavers previously sealed with a solvent based acrylic. If the concrete is smooth or trowel finished, and doesn't quickly and easily absorb water, other surface preparation may be required to open up the surface pores, such as acid etching or grinding.

The Armor AX25 should not be used to seal clay brick, red Chicago pavers, flagstone, slate, or natural stone. If you are looking to seal clay brick, red Chicago pavers, flagstone, slate, or natural stone, consider instead of the Armor WL550 or the Armor SX5000 WB.

Note About Sealing Pavers:

Please note, while the Armor AX25 can be applied over paver joints, it is not designed as a bonding agent and will not harden or bond the loose sand in the paver joints. If applying with a roller, loose sand in the joints may cling to the roller and be redistributed across the pavers. For best results, apply first coat with a sprayer if you are applying to pavers with loose sand in the paver joints.

When applying to porous pavers, gloss level may be reduced, and more material may be required to achieve desired finish.

Mixing Opaque Color Packs: Do not exceed more than 6 ounces of color per gallon of sealer. Stir color well before adding to sealer, then once added to sealer, stir again, ensuring color is evenly mixed. Once cured, will cover like a paint—you will be left with an opaque colored finish.

Mixing Semi-Transparent Color Packs: Do not exceed more than 1 ounce of color per gallon of sealer. Stir color well before adding to sealer, then once added to sealer, stir again, ensuring color is evenly mixed. Once cured, will offer a semi-transparent tinted finish.

Adding Non-Slip: For added surface traction, the Armor Non-Slip additive can be added. The ultra-fine, fine, and coarse Armor Non-Slip additives works best in the Armor AX25. Applying the Ultra-Fine: Slowly drill mix 3-6.5 ounces of non-slip additive per gallon of sealer, until completely blended, then apply. For Fine and Coarse: When applying the second coat, add the non-slip additive to the coating using a broadcast spreader, and back roll to encapsulate the non-slip additive.

Clean-Up

Use Xylene or acetone. Dispose of containers in accordance with local and federal regulations.

Product Removal

Dried, cured sealer may be removed with a the Armor CR100, or by using a diamond grinding method, sandblasting method or similar mechanical action.

PRECAUTIONS AND LIMITATIONS

- ◆ When applying, odors are strong. Area should be properly ventilated during the time of application, and for at least 7 days after application, to allow for the solvents to fully release and the odors to dissipate.
- ◆ HVAC ducts should be blocked to avoid distribution of solvents and odors. Extinguish any pilot lights or other sources of ignition prior to starting.
- ◆ Coverage rates depend upon many conditions including application method, surface porosity, and applicator.
- ◆ Please be aware that this product when cured may be slippery when wet. We suggest a non-slip additive where slipperiness is a concern.
- ◆ Sealer is not resistant to brake fluid, gasoline, and many other similar products.
- ◆ Do not dilute or thin sealer with any products.
- ◆ White spots (blushing) and premature delamination or failure may occur if applied to wet surfaces, surfaces with moisture issues, or surfaces that get wet before the sealer has fully cured. Do not apply in early morning if morning dew is present.
- ◆ Do not apply in the morning or middle of the day to avoid hazing and bubbling.
- ◆ Store product in an area where the temperature is between 55-80 degrees F, and not in direct sunlight. Keep away from open flames, sparks, or other sources of ignition.
- ◆ If applying sealer to pavers less than one year old, verify with paver manufacturer that pavers are able to be sealed. Sealing before suggested guidelines can result in coating failure.
- ◆ Proper personal protective equipment should be worn when applying this product. Refer to the Safety Data Sheet prior to application.
- ◆ Properly protect and cover any areas not intended or suggested to be sealed during application.
- ◆ Do not apply over sealers, water based acrylics, acrylic latex, paint, or any other film-forming coating other than a solvent based acrylic. If the solvent based acrylic is deteriorating, repair or remove prior to application. Apply to a test area before sealing to verify compatibility.
- ◆ This product does not stop hot tire pickup or tire marks.
- ◆ Plasticizers in rubber mats and rubber based materials may react and bond to cured coating.
- ◆ In all cases, refer to the Safety Data Sheet prior to application for complete health and safety information. Do not swallow, avoid direct contact with skin, avoid inhalation, keep out of reach of children and pets.
- ◆ Foundation Armor offers no guarantee, warranty or other claims to the success or results of a job or project.
- ◆ The applicator is responsible for suitability of application, and the results of the application. We suggest applying to a test area first to verify compatibility, absorption, coverage rate, and project suitability. Applicator is also responsible for ensuring product meets local VOC regulations, and any and all other regulations that may apply.
- ◆ Product is not returnable once opened or used so please consider purchasing a 16 ounce sample to test product before purchasing larger quantities.

PSUH Stadium Seating &
Restroom Building
PSU Job # 00-08713.00

WMF 2022.138.00

January 2024

END OF SECTION 09 91 23