

SPEC NOTE: Notes in italics, such as this one, are explanatory and intended to guide the design/construction professional and user in the proper selection and use of materials. This specification should be modified where necessary to accommodate individual project conditions.

PART 1 GENERAL

1.1 SUMMARY

- .1 Provide acrylic-based primer and acrylic-based finish coating for vertical, above-grade, new, uncoated concrete, stucco, and masonry walls.

SPEC NOTE: IMPORTANT: This guide specification covers installation of a coating and primer over building code compliant wall construction. It does not address air sealing, construction detailing, flashing and other important aspects of design and construction that must be taken into consideration to prevent water infiltration, to prevent condensation caused by air leakage or water vapor diffusion, and to comply with applicable fire safety requirements. Consult with a qualified design professional for overall design of the wall assembly.

- .2 Related Sections: Other specification sections which relate directly to the work of this section include the following:
 - .1 Section 033000 Cast-In-Place Concrete
 - .2 Section 034000 Precast Concrete
 - .3 Section 042200 Concrete Unit Masonry
 - .4 Section 092400 Portland Cement Plastering

1.2 SUBMITTALS

- .1 Product Data: Submit manufacturer's product data and installation instructions for each material and product used. Include manufacturer's Material Safety Data Sheets.

1.3 REFERENCES

- .1 ASTM International (ASTM)
 - ASTM D 412 Tensile Strength and Elongation
 - ASTM D 522 Mandrel Bend Flexibility
 - ASTM D 2247 Moisture Resistance
 - ASTM D 3273 Mold Resistance
 - ASTM D 4541 Direct Tensile Bond
 - ASTM E 96 Water Vapor Permeability, wet cup method
- .2 South Coast Air Quality Management District (SCAQMD)
 - Rule 1113

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Concrete and stucco substrate primer: Acrylic-based, tinted, high-pH compatible primer/sealer:
 - .1 80805 StoPrime Hot, as manufactured by Sto Corp., 3800 Camp Creek Parkway, Building 1400, Suite 120, Atlanta, Georgia 30331.
 - .2 Performance and Physical Properties: Meet or exceed the following values for material cured at 73 degrees F (23 degrees C) and 50 percent relative humidity (unless otherwise specified).
 - .1 Application: Spray, roller, or brush.
 - .2 Working time: 10-20 minutes, depending on ambient conditions.
 - .3 Adhesion to concrete: 680 psi (4.69 MPa), ASTM D 4541
 - .4 Flame Spread Index: 0, ASTM E 84,
 - .5 Smoke Developed: 10, ASTM E 84
 - .6 Water vapor transmission: 30 perms (1720 ng/Pa·s·sq.m.), tested at 3 dry mils applied in one coat, ASTM E 96, wet cup method.
 - .7 VOC: < 100 g/L, EPA 24, complies with SCAQMD Rule 1113
- .2 Concrete masonry substrate primer: Acrylic-based based, masonry block-filler/primer. Single component acrylic-based primer, containing acrylic polymer, and fine mineral fillers. Product shall comply with the following (select one):
 - .1 80804 StoPrime as manufactured by Sto Corp., 3800 Camp Creek Parkway, Building 1400, Suite 120, Atlanta, Georgia 30331.
 - .2 81520 StoPrime Block Surfacer HP as manufactured by Sto Corp., 3800 Camp Creek Parkway, Building 1400, Suite 120, Atlanta, Georgia 30331.
 - .3 Performance and Physical Properties: Meet or exceed the following values for material cured at 73 degrees F (23 degrees C) and 50 percent relative humidity (unless otherwise specified).
 - .1 Application: Spray, roller, or brush.
 - .2 Working Time: 10-20 minutes.
 - .3 Flame Spread: < 25, ASTM E 84
 - .4 Smoke Developed: < 450, ASTM E 84
 - .5 VOC: <100 g/L, EPA 24, Complies with SCAQMD Rule 1113
- .3 Finish Coating: Single component textured acrylic-based coating, containing acrylic polymer, and colored pigments. Product shall comply with the following:
 - .1 80230 StoColor Coat Sand, as manufactured by Sto Corp.

- .2 Performance and Physical Properties: Meet or exceed the following values for material cured at 73 degrees F (23 degrees C) and 50 percent relative humidity (unless otherwise specified).
 - .1 Application: Spray, roller, or brush.
 - .2 Working Time: 10-20 minutes.
 - .3 Tensile Strength: 335 psi (2.31 MPa), ASTM D 412
 - .4 Elongation at Break: 12 %, ASTM D 412
 - .5 Adhesion to Concrete: 420 psi (2.90 MPa), ASTM D 4541
 - .6 Moisture Resistance: No deleterious effects such as loss of adhesion, discoloration, blistering, cracking, flaking, ASTM D 2247, 14 day exposure.
 - .7 Water Vapor Permeability: 68 perms (3880 ng/Pa.s.sq.m) tested at 8 dry mils, applied in two coats, ASTM E 96, wet cup method.
 - .8 VOC: <50 g/L, EPA 24, complies with SCAQMD Rule 1113
 - .9 Solids Content: 45%, by volume

PART 3 EXECUTION

3.1 INSTALLATION

- .1 Surface Preparation
 - .1 All surfaces must be clean, dry, sound, and free of frost and contamination such as mildew, dirt, grease, oils, salts, efflorescence and any other contamination that may affect adhesion.
 - .2 Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and installation of materials.
- .2 Mixing
 - .1 Mix Sto products in accordance with published literature for the product. Mix for approximately 3 minutes using a slow-speed drill and paddle to a uniform consistency. Avoid entrapping air in the liquid during mixing.
- .3 Application
 - .1 Apply primer to prepared substrate in accordance with written instructions presented on the Sto Product Bulletin for the primer product being used.
 - .2 Apply two coats of StoColor Coat Sand at 8 – 10 wet mils, per coat, by brush, roller, or appropriate spray equipment. Apply first coat directly to primed substrate and allow to dry completely before applying second coat. Final thickness of StoCoat Color Sand shall be minimum 4 dry mils, per coat.
- .4 Protection

- .1 Provide protection of installed materials from water infiltration into or behind them.
- .2 Provide protection of installed materials from dust, dirt, precipitation, freezing and continuous high humidity until they are fully dry.
- .3 Provide coping and/or flashing at sills, projecting features, deck attachments, roof/wall intersections, parapets and similar construction details to prevent water entry into wall assembly or into and behind the finish system. Seal penetrations through the finished wall surface with backer rod and sealant or other appropriate means to provide a watertight condition.

END OF SECTION 09 91 13

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