



Building with conscience.

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Sto Guide Specification No. 3000 StoQuik® Finish for Concrete and CMU

**Section 09 25 13.13
ACRYLIC PLASTER FINISH
or
Section 09 77 00
SPECIAL WALL SURFACING**

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.

The applicable CSI Section number depends on the finish selected: Sto Textured Finishes and Sto Signature Finishes are Acrylic Plaster Finish. Sto Specialty Finishes and StoCast Finishes are Special Wall Surfacing



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PART 1 GENERAL

1.1 SUMMARY

- A. Provide finish for vertical above grade exterior concrete and concrete masonry wall surfaces.

IMPORTANT: This guide specification covers installation of a Class A finish over building code compliant concrete or concrete masonry (CMU) 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.

1.2 SUBMITTALS

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

1.3 REFERENCES

- A. ASTM Standards
1. C920, Standard Specification for Elastomeric Joint Sealants
 2. E84, Standard Test Method for Surface Burning Characteristics of Building Materials
- B. South Coast Air Quality Management District (South Coast AQMD)
1. Rule 1113, Architectural Coatings

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: The finish manufacturer shall be a company with at least thirty five years of experience in manufacturing acrylic plaster and specialty finishes and regularly engaged in the manufacture and marketing of products specified herein. The manufacturer shall have a current ISO 9001 certified quality system and ISO 14001 certified environmental management system.
- B. Installer's Qualifications: The contractor shall be qualified to perform the work specified by reason of experience. Contractor shall have at least 5 years of experience in acrylic plaster or specialty finish application, and shall have completed at least 3 projects of similar size and complexity. Contractor shall provide proof before commencement of work that he/she will maintain and supervise a qualified crew of applicators through the duration of the work. When requested Contractor shall provide a list of the last three comparable jobs including the name, location, and start and finish dates for the work.
- C. Mock-ups: The contractor shall install a mock-up of the finished wall for evaluation and approval by the design professional, building owner, or owner's representative/quality assurance agent.
- D. Testing: Testing shall be conducted as directed by the design professional, building owner, or owner's representative/quality assurance agent to verify wall assembly performance, and to verify adhesion to prepared substrates before and during construction. Where substrate is too dense or non-absorbent for adhesion, or where a bond inhibiting material is on the surface, or in any case where adhesion is in question, install portland cement plaster over metal lath or other appropriate plaster base as directed by design professional, owner, or owner's representative/quality assurance agent.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver products in original packaging, labeled with product identification, manufacturer, and batch number.
- B. Store products in a dry area with temperature maintained between 50 and 85 degrees F (10 and 29 degrees C). Protect from direct sunlight. Protect from freezing. Protect from extreme heat (>90 degrees F [32 degrees C]).
- C. Handle products in accordance with manufacturer's printed instructions.

1.6 WARRANTY

- A. Provide manufacturer's standard limited warranty.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Finishes, primers, adhesives, stains, levelers, and any other associated materials used with the finish shall be Class A building materials based on testing in accordance with ASTM E84. VOC (Volatile Organic Content) shall be less than 50g/L and shall comply with South Coast AQMD Rule 1113 requirements
- B. Substrate Leveler or Skim Coat

Note: select one material depending on wall surface condition

- 1. Sto BTS Plus – factory blended polymer modified dry powder base coat mixed with potable water for leveling and smoothing wall surfaces up to 1/16 inch (1.6mm) in one coat or 1/8 inch (3mm) in two coats
- 2. Sto Primer-Adhesive-B – factory blended polymer modified dry powder base coat mixed with potable water for leveling and smoothing wall surfaces up to 1/16 inch (1.6mm) in one coat or 1/8 inch (3mm) in two coats
- 3. Sto Primer/Adhesive – latex additive field mixed with portland cement for leveling and smoothing wall surfaces up to 1/16 inch (1.6mm) in one coat or 1/8 inch (3mm) in two coats
- 4. Sto BTS Xtra – factory blended polymer modified dry powder base coat mixed with potable water for leveling and smoothing wall surfaces up to 1/8 inch (3mm) in one coat or 1/4 inch (6mm) in two coats
- 5. Sto Leveler and Skim Coat - factory blended polymer modified dry powder base coat mixed with potable water for leveling and smoothing wall surfaces up to 1/4 inch (6mm) in one coat or 1/2 inch (13mm) in two coats

Note: Sto Crack Defense is optional. It functions to resist cracking in the leveling coats

- C. Sto Crack Defense
 - 1. Sto Mesh – nominal 4.5 oz/yd² (153 g/m²) glass fiber reinforcing mesh treated for compatibility with Sto materials embedded in the Sto base coat material to form Sto Crack Defense.

Note: Select one waterproof base coat if waterproofing of the wall surface is intended. Also use waterproof base coat to waterproof sloped surfaces of foam trim where it exceeds 2 inches [51mm] up to a maximum of 4 inches [102mm] thick. Minimum required slope of foam trim is 1:2 (27 degrees).

- D. Waterproof Base Coat

1. Sto Flexyl – acrylic-based additive combined with portland cement in the field (for leveling and waterproofing up to 1/16 inch [1.6 mm] in one pass with Sto Mesh)
2. Sto Watertight Coat – two component acrylic additive with pre-proportioned portland cement, (for leveling and waterproofing up to 1/16 inch [1.6 mm] in one pass with Sto Mesh)

Note: priming is generally recommended for best results when installing Sto Textured Finishes. Priming is required for Sto Specialty finishes. Select one primer as applicable.

E. Primer

1. StoPrime® Hot – acrylic-based primer/sealer for highly alkaline (pH greater than or equal to 10) substrates
2. StoPrime® Sand – acrylic-based tinted, sanded primer for fully cured (minimum 28 day old or pH less than 10) substrates
3. StoPrime® - acrylic-based tinted block filler and primer for fully cured (minimum 28 day old or pH less than 10) substrates
4. StoPrime® Block Surfacer HP – acrylic-based high build block filler and primer for fully cured (minimum 28 day old or pH less than 10) concrete and concrete masonry substrates

Note: Select finish based on sample submittals and approved mock-up

F. Textured Finishes

1. Stolit® Lotusan® – factory blended, decorative and protective textured wall finish with integral color and Lotus-Effect® technology
2. Stolit® HDP™ -- factory blended, decorative and protective, hydrophobic, acrylic textured wall finish with integral color
3. Sto Powerflex Silco – factory blended, decorative and protective, silicone enhanced acrylic elastomeric textured wall finish with integral color
4. Sto Powerflex – factory blended, decorative and protective, acrylic elastomeric textured wall finish with integral color
5. Sto Powerwall® – factory blended, decorative and protective, flexible acrylic textured wall finish with integral color
6. Stolit® – factory blended, decorative and protective, acrylic textured wall finish with integral color
7. Stolit® X – factory blended, decorative and protective, acrylic textured wall finish with integral color, and enhanced polymer technology for easy spread and float application
8. Sto Essence DPR – factory blended, decorative and protective, acrylic textured wall finish

Note: Sto Specialty Finishes require priming prior to application of finish

G. Sto Specialty Finishes

1. StoCreativ® Granite, StoCreativ® Lux, Sto GraniTex®, or Sto Decocoat® factory blended, decorative and protective clear acrylic textured wall finishes with factory blended aggregate color

H. Sto Smooth Finishes

1. Stolit® Milano – factory blended, decorative and protective acrylic-based smooth wall finish

2. Stolit® Freeform – factory blended, decorative and protective acrylic-based wall finish (can be applied to create a smooth wall finish, skip trowel texture, or other “freeform” finish textures)
- I. Sto® Signature™ Series Finishes – combinations of Sto factory blended acrylic finishes that create special effect architectural surfaces with trowel techniques
- J. StoCast Finishes – Sto factory cast decorative and protective finishes
 1. StoCast Wood
 2. StoCast Brick
- K. Accessories
 1. StoSeal STPE Sealant - high-movement, low modulus, non-sag one-component silyl-terminated polyether joint sealant in compliance with ASTM C920

2.2 PERFORMANCE REQUIREMENTS

1. Waterproofing, primers, and applicable finish components: ASTM E84, flame Spread less than 25, smoke developed less than 75, Class A building material
2. Waterproofing, primers, and applicable finish components: South Coast AQMD Rule 1113, Volatile Organic Content (VOC), comply with applicable requirement of coating category

PART 3 EXECUTION

3.1 INSTALLATION

Note: Smooth finish textures require tighter tolerances than coarse textures. Sto base coats and levelers can generally be used in one or two coats to level and smoothen prepared concrete and concrete masonry wall surfaces. The approved mock-up shall be the basis for the materials and methods needed to achieve an acceptable finished wall surface appearance

- A. All substrates shall be leveled and true to a tolerance of not more than 1/8 inch in 10 ft (3mm in 3 m) except when determined otherwise on the basis of an approved mock-up.
- B. Surface Preparation
 1. Concrete: Concrete must be free of surface contamination such as grease, oil, wax, dust, dirt, salts, algae, mildew, pollen or any other surface contamination that could inhibit adhesion. Surface must be absorbent, slightly pitted or scarified and must be fully cured and free of voids, cracks, weak surface conditions such as laitance, and any other surface defects.
 2. Concrete Masonry: Concrete masonry must be free of surface contamination such as grease, oil, wax, dust, dirt, salts, algae, mildew, pollen or any other surface contamination that could inhibit adhesion. Surface must be fully cured and free of cracks, weak surface conditions such as laitance, and any other surface defects.
- C. Mixing
 1. Mix Sto products in accordance with published literature. Refer to applicable Product Bulletins for specific information on use, handling, application, precautions, and limitations of specific products
- D. Application

1. Apply the selected Sto base coat product in one or two coats in accordance with published literature to level and smooth the prepared wall surface

Note: Sto Crack Defense is optional and can be used as one of the leveling coats to level and smooth the wall surface

2. Crack Defense Reinforcement Layer: Install nominal 1/8 inch (3 mm) base coat by trowel to the wall surface. Work horizontally or vertically in strips of 40 inches (1016 mm), and immediately embed the reinforcing mesh into the wet base coat by troweling from the center to the edges of the mesh. Overlap mesh not less than 2-1/2 inches (64 mm) at mesh seams and feather at seams. Double wrap all inside and outside corners with minimum 6-inch (152 mm) overlap in each direction. Avoid wrinkles in the mesh. The mesh must be fully embedded so that no mesh color shows through. Re-skim with additional base coat if mesh color is visible. Allow base coat to dry before applying primer.

Note: priming is generally recommended for best results when installing Sto Textured Finishes. Priming is required for Sto Specialty finishes. Select one primer as applicable.

3. Apply appropriate primer by brush, roller, or spray to the base coat.
4. When the primer application is dry apply the Sto finish
 - a. Sto Textured Finish Installation: Refer to applicable Product Bulletin
 - b. Sto Specialty Finish Installation: Refer to applicable Product Bulletin
 - c. Signature Finish Installation: Refer to applicable Sto Signature Finish Application Guide
 - d. StoCast Finish Installation: Refer to applicable StoCast Product Bulletin and Application Guide
5. Do not install base coat, reinforcing mesh, primer, or finish coat over joint sealants, cold joints, control joints, or accessories. Install over the prepared leveled substrate only.

E. Protection

1. Provide protection of installed materials from water infiltration into or behind them during and after construction.
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 the wall assembly or into and behind the finish. Seal penetrations through the finished wall surface with backer rod and sealant or other appropriate means to provide a watertight condition.

ATTENTION

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