



Building with conscience.

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Sto Guide Specification No. 1400 StoQuik® Finish for Soffits and Ceilings

**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

This guide specification covers installation of a Class A finish over building code compliant soffit or ceiling construction. It does not address air sealing, soffit or ceiling ventilation, construction detailing, flashing, drip edges, 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 soffit/ceiling assembly.

Follow the guidance provided by ASTM C840 for location of control joints (typically ¼ inch [6mm] width) and as designated by design professional in the exterior ceiling or soffit assembly by providing for them:

- *“where construction joints (expansion, seismic, or building control element) exist in the base building structure.”*
- *“at linear dimensions not to exceed 30 ft (9m) between control joints and total area between control joints not to exceed 900 ft² (84m²).”*

Provide isolation joints at abutting perimeter walls, columns, or other abutments.

Provide appropriate control joint, expansion joint, and termination accessories with perforated flanges for keying of base coat and mesh into the flange.

1.1 SUMMARY

- A. Provide finish for exterior gypsum or cement board soffit and ceiling surfaces.

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, Specification for Elastomeric Joint Sealants
 2. C1177, Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
 3. C1325, Standard Specification for Non-Asbestos Fiber-Mat Reinforced Cementitious Backer Units
 4. 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 an ISO 9001:2008 certified quality system and ISO 14001:2004 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 surface 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 soffit/ceiling assembly performance and adhesion to prepared substrates.

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 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.

Note: Select one soffit or ceiling board

- B. Gypsum or Cement Soffit or Ceiling Board
 1. eXP® glass mat faced gypsum sheathing as manufactured by National Gypsum in compliance with ASTM C1177
 2. DensGlass® glass mat faced gypsum sheathing as manufactured by Georgia Pacific in compliance with ASTM C1177
 3. PermaBase® Brand cement board as manufactured by National Gypsum in compliance with ASTM C1325
- C. Surface Reinforcement
 1. Sto Mesh – nominal 4.5 oz/yd² (153 g/m²) glass fiber reinforcing mesh treated for compatibility with Sto materials

Note: select one base coat

- D. Base Coat – polymer modified portland cement base coat

1. Sto BTS Plus – factory blended dry powder high build base coat mixed with potable water
2. Sto BTS Xtra – factory blended dry powder extra high build base coat mixed with potable water
3. Sto Primer/Adhesive-B – factory blended dry powder base coat mixed with potable water

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® Sand – acrylic-based sanded primer for use with Sto Textured Finishes, Sto Specialty Finishes, Sto Signature Finishes, and StoCast Finishes
2. StoPrime® – acrylic-based smooth primer for use with Sto Smooth Finishes (Stolit Freeform applied to create a smooth wall finish)

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

F. Textured Finishes

1. Stolit® HDP™ -- factory blended, decorative and protective, hydrophobic, acrylic textured wall finish with integral color
2. Stolit® – factory blended decorative and protective acrylic-based textured wall finish with integral color
3. Stolit® X – factory blended, decorative and protective, acrylic textured wall finish with integral color, and enhanced polymer technology for easy spread and float application
4. Sto Essence DPR – factory blended decorative and protective textured wall finish with integral color

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

G. Sto Specialty Finishes

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

H. Sto Signature™ Series Finishes – combinations of Sto factory prepared acrylic finishes that create special effect architectural surfaces with trowel techniques

I. StoCast Finishes – Sto factory cast decorative and protective finishes for walls and ceilings

1. StoCast Wood
2. StoCast Brick

J. Accessories

1. StoSeal STPE Sealant - high-movement, low modulus, non-sag one-component silyl-terminated polyether joint sealant in compliance with ASTM C920
2. Sto-Mesh Corner Bead Standard – one component PVC (polyvinyl chloride) accessory with integral reinforcing mesh for outside corner reinforcement
3. Sto Drip Edge Profile - one component PVC (polyvinyl chloride) accessory with integral reinforcing mesh that creates a drip edge and plaster return
4. PVC Accessories for DEFS (Direct-Applied Exterior Finish Systems) – Polyvinyl Chloride (PVC) components for exterior use in compliance with ASTM D1784

2.2 PERFORMANCE REQUIREMENTS

1. Primers and applicable finish components: ASTM E84, flame Spread less than 25, smoke developed less than 75, Class A building material
2. 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

- A. Gypsum or cement soffit board must be installed in conformance with the applicable building code and manufacturer's written installation instructions. Gypsum or cement soffit board surface must be clean, dry, and free of surface contamination. Soffit board surface shall not have planar irregularities in excess of 1/16 inch (1.6 mm) and shall be free of voids, cracks, and other surface defects.

NOTE: Coarse texture finishes (equal to or greater than 1.5 mm texturing aggregate) are recommended to hide trowel marks and other minor surface imperfections in the surface. Where finer textures are used a second application of base coat may be necessary to provide a smooth enough surface for the fine texture finish. The approved mock-up shall be the basis for acceptable finished appearance and the number of layers of base coat needed to achieve the finished appearance.

- B. 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.

- C. Application

1. Install corrosion proof termination accessories with perforated flanges for keying of the base coat at junctures with penetrations such as soffit vents, electrical fixtures, and with abutting walls and columns. Install corrosion proof control joints with perforated flanges for keying of the base coat at intervals as required by the soffit board manufacturer. Refer to Sto Guide details.
2. Treat cement board joints with Sto Detail Mesh embedded in base coat.
3. Install nominal 1/8-inch (3 mm) base coat by trowel to the soffit/ceiling board surface. Work horizontally or vertically in strips of 40 inches (1016 mm), and immediately embed the Sto Mesh into the wet base coat by troweling from the center to the edge of the mesh. Overlap mesh installed at perforated accessory flanges by installing Sto Mesh up to the termination bead of the accessory. Overlap mesh not less than 2-½ 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 (except where corner bead is used at outside corners lap mesh over perforated flange of accessory). Avoid wrinkles in the mesh. The mesh must be fully embedded so that no mesh color shows through the base coat when it is dry. Re-skim with additional base coat if mesh color is visible. Do not install base coat and mesh onto solid (unperforated) portions of accessories.

Note: priming is generally recommended for best results when installing Sto Textured Finishes. Priming is required for Sto Specialty finishes

4. When the base coat application is dry apply the primer by brush or roller to the entire base coat surface.
5. 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
- D. 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. Seal penetrations through the finished surface with backer rod and sealant or other appropriate means

ATTENTION

Sto products are intended for use by qualified professional contractors, not consumers, as a component of a larger construction assembly as specified by a qualified design professional, general contractor or builder. They should be installed in accordance with those specifications and Sto's instructions. Sto Corp. disclaims all, and assumes no, liability for on-site inspections, for its products applied improperly, or by unqualified persons or entities, or as part of an improperly designed or constructed building, for the nonperformance of adjacent building components or assemblies, or for other construction activities beyond Sto's control. Improper use of Sto products or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to Sto products, and to the structure of the building or its components. **STO CORP. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICIT LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANGE FROM TIME TO TIME.** For the fullest, most current information on proper application, clean-up, mixing and other specifications and warranties, cautions and disclaimers, please refer to the Sto Corp. website, www.stocorp.com.