



Sto Corp.
3800 Camp Creek Parkway
Building 1400, Suite 120
Atlanta, GA 30331
Tel: 404-346-3666
Toll Free: 1-800-221-2397
Fax: 404-346-3119
www.stocorp.com

**Sto Guide Specification No. F550
Sto Finish System for AAC (Autoclaved Aerated Concrete)**

**Section 09 25 13.13
ACRYLIC PLASTER FINISH**

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.



Table of Contents

PART 1	GENERAL	3
1.1	SUMMARY	3
1.2	SUBMITTALS.....	3
1.3	REFERENCES.....	3
1.4	QUALITY ASSURANCE	3
1.5	DELIVERY, STORAGE AND HANDLING	3
1.6	WARRANTY	4
PART 2	PRODUCTS	4
2.1	MATERIALS	4
PART 3	EXECUTION	5
3.1	INSTALLATION.....	5

PART 1 GENERAL

1.1 SUMMARY

- A. Provide textured finish system for vertical above grade exterior AAC wall surfaces.

IMPORTANT: This guide specification covers installation of a Class A textured finish system 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.

1.2 SUBMITTALS

- A. 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

- A. Masonry Standards
TMS402/ACI530/ASCE 5 Building Code Requirements and Specification for Masonry Structures
- B. South Coast Air Quality Management District (SCAQMD)
Rule 1113 Architectural Coatings

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: The textured finish system manufacturer shall be a company with at least thirty five years of experience in manufacturing 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 commercial textured 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 system 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.

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. Textured Finishes (*select one*)
 - 1. Stolit Lotusan – high performance decorative and protective textured wall finish with integral color and Lotus-Effect® technology, complies with SCAQMD Rule 1113 for architectural finishes.
 - 2. Stolit – high performance decorative and protective acrylic-based textured wall finish with integral color, complies with SCAQMD Rule 1113 for architectural finishes.
 - 3. Sto Essence DPR – high performance decorative and protective textured wall finish with integral color, complies with SCAQMD Rule 1113 for architectural finishes.
- B. StoSignature Finishes – Stolit acrylic based textured wall finish applied over Sto Crack Defense with specialized techniques to achieve unique textures, impressions or effects. Refer to www.stocorp.com for StoSignature Finishes Brochure and Installation Guides.
- C. StoCast Finishes – Sto custom cast pre-formed decorative and protective finish and adhesive
 - 1. StoCast Wood
 - 2. StoCast Brick
- D. Primer
 - 1. Sto Primer – acrylic-based sanded primer, complies with SCAQMD Rule 1113 for primers.
- E. Base Coat
 - 1. Sto BTS Xtra – one component polymer modified portland cement high build lightweight base coat
- F. Waterproof Base Coat (*select one*)
 - 1. Sto Flexyl – one component acrylic-based additive combined with portland cement, complies with SCAQMD Rule 1113 for waterproofing sealers.
 - 2. Sto Watertight Coat – two component acrylic-based additive with dry ingredient, complies with SCAQMD Rule 1113 for waterproofing sealers.

- G. Surface Reinforcement
 - 1. Sto Mesh – nominal 4.5 oz/yd² (153 g/m²) glass fiber reinforcing mesh treated for compatibility with Sto materials
- H. Surface Conditioner
 - 1. StoPlex W – water-based acrylic surface conditioner for reducing absorption of highly absorbent surfaces
- I. AAC
 - 1. AAC masonry units and mortar in compliance with the requirements of TMS402/ACI530/ASCE 5

PART 3 EXECUTION

3.1 INSTALLATION

- A. General Surface Preparation
 - 1. AAC must be constructed in conformance with the applicable building code and manufacturer's written installation instructions. AAC must be clean, dry, and free of surface contamination. AAC surface shall be straight and true to within 1/8 inch in 10 feet (3 mm in 3 m) and free of voids, cracks, and other surface defects.

NOTE: The selected finish texture influences allowable tolerance of the substrate surface needed to produce the desired finished wall surface appearance. Smooth textures require tighter tolerances than coarse textures. A wall surface with planar irregularities of 1/16 inch (1.6 mm) or less is often needed for an acceptable finished wall surface appearance. The approved mock up shall be the basis for both acceptable substrate surface tolerances and finished appearance. Where substrate surfaces are highly irregular or out of plane the application of StoTherm® ci may be an acceptable means of correcting the AAC wall surface condition, as determined by the design professional, owner, or owner's representative/quality assurance agent.

- 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. Rasp any high spots or mortar protrusions from the AAC wall surface to provide a uniform surface ready to receive the textured finish system.
 - 2. Apply a uniform coat of StoPlex W by brush, roller or spray for highly absorbent surfaces (optional step depending on surface and weather conditions. If hot, dry conditions persist during the construction period StoPlex W can facilitate application of base coat by diminishing AAC surface absorption).
 - 3. Install a nominal 1/16-1/8 inch (1.6 – 3 mm) skim coat of the base coat material to the prepared AAC wall surface by trowel to fill and level the surface and allow to dry.

4. Install nominal 1/8 inch (3 mm) base coat by trowel to the skim coated wall surface. Work horizontally or vertically in strips of 40 inches (1016 mm), and immediately embed the mesh into the wet base coat by troweling from the center to the edge 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 8-inch (203 mm) overlap in each direction. 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.
 5. When the base coat application is dry apply the primer by brush or roller to the entire base coat surface.
 6. Textured Finish Coat Application when the primer application is dry apply the textured finish by trowel. Apply finish in a continuous application, and work to a wet edge. Float the finish to achieve the desired texture.
 7. StoSignature Finish Application – refer to StoSignature Application Guide
 8. Sto Custom Cast Finish Application – refer to applicable Application Guide and/or Product Bulletin for selected finish
 9. Do not install base coat, reinforcing mesh or finish over joint sealants. Install over continuous AAC surface only.
- 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. 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 system. Seal penetrations through the finished wall surface with backer rod and sealant or other appropriate means to provide a watertight condition.

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.