Technical Data

Surface Burning

REPORT

Flexibility

1

2

3

Water Vapor

Sto Essence DPR Finishes

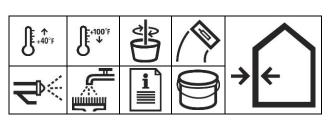
TEST METHOD

ASTM E-84

ASTM D-522

ASTM E-96

80306 Sto Medium Sand Finish 80307 Sto Swirl Finish 80310 Sto Fine Sand Finish



A ready-mixed, acrylic-based exterior or interior textured coating used as a decorative and protective wall finish over prepared concrete, masonry and plaster substrates and in StoTherm[®] ci Essence.

Coverage

Sto Medium Sand Finish: 110-
130 ft² (10.2-12.1 m²) per pail.
Sto Swirl Finish: 120-140 ft ²
(11.1-13.0 m ²) per pail.
Sto Fine Sand Finish: 140-160 ft ²
(13.0-14.9 m ²) per pail.
Coverages may vary depending
on application technique and
surface conditions.

Packaging

5 gallon pail (19 L).

Shelf Life

18 months, if properly stored and sealed.

Storage

Protect from extreme heat [90°F (32°C)], freezing, direct sunlight.

Transmission (U.S. perms)	Method B		
Accelerated Weathering	ASTM G-154	2000 hours	No deleterious effects @ 5000 hrs
Chalk Rating	ASTM D-4214	5000 hours	8 (10 = best on scale 1-10)
Yellowness Index	ASTM E-313	5000 hours	0.58 (0 = no change; 2 = barely discernable change)
Freeze-thaw Resistance	ASTM 2485	60 cycles	No deleterious effects @ 90 cycles
Mildew Resistance	ASTM D-3273	No growth @ 28 days	No growth @ 60 days
Salt Spray Resistance	ASTM B-117	300 hours	No deleterious effects @ 1000 hrs
Wind Driven Rain	Fed TT-C-555B	24 hour driving rain	No water penetration
Water Resistance	ASTM D-2247	14 days	No deleterious effects @ 42 days
Abrasion Resistance	ASTM D-968	528 qts. sand	No cracking, checking or loss of film integrity @ 528 qts.
Tensile Adhesion (psi)	EIMA 101.03	No failure in the EIFS adhesive, basecoat or finish; minimum 5 psi	Pass
Adhesion	ASTM C-297	28 days	> 80 to concrete
Fire Resistance	ASTM E-119	No effect on fire resistance rating of existing rated assembly	Pass
VOC (g/L)	This product complies with US EPA (40 CFR 59) and South Coast AQMD (Rule 1113) VOC emission standards for architectural coatings. VOC less than		

TEST CRITERIA

< 25 Flame Spread

4" mandrel bend

28 days

< 450 Smoke Developed

TEST RESULTS

0

5

Pass

34

50 g/L. Features Benefits Allows substrate to breathe naturally; resists blisters caused by Vapor Permeable trapped vapor **Moisture Resistant** Repels water; resists wind driven rain Water-based Safe, non-toxic; cleans up with water

4 Dirt pick-up resistant Resists mildew and algae growth; low maintenance Meets South Coast Air Quality Management District Low VOC 5 Requirements

Sto Essence DPR Finishes



Surface Preparation

Concrete and masonry surfaces: Surfaces must be clean, dry, and free of frost, damage, and all bondinhibiting materials, including dirt, efflorescence, form oil and other foreign matter. Loose or damaged material must be removed by water blasting, sandblasting or mechanical wire brushing and repaired. Avoid application over irregular surfaces. Resurface, patch or level surfaces to required tolerance and smoothness with appropriate Sto leveling materials. Refer to ASTM D-4258 and ASTM D-4261 for complete details on methods of preparing cementitious substrates for coatings. StoTherm[®] Exterior Insulation and Finish Systems (EIFS): Surface must be free of all bond-

inhibiting materials.

Gypsum wallboard surfaces: Wallboard must be taped and fasteners spotted with joint compound. Refer to ASTM C-840 and gypsum wallboard manufacturer's literature.

Surface must be free of dust, dirt and other bondinhibiting materials. Surface must be primed with appropriate Sto Primer.

Autoclaved Aerated Concrete (AAC): Base coat must be fully dry and smooth. Base coat surface must be free of all bond-inhibiting materials.

Sto recommends priming cementitious substrates using the appropriate Sto primer prior to application of finish.

Mixing

Mix with a clean, rust-free electric drill and paddle to a uniform consistency. A small amount of clean water may be added to aid workability Limit addition of water to amount needed to achieve the finish texture.

Application

Apply only to sound and clean, dry, properly prepared, frost-free surfaces.

Trowel: Apply Sto Essence Finishes with a clean stainless steel trowel to a rough thickness slightly more than the largest aggregate size. Use the trowel to scrape the material down to a uniform thickness no greater than the largest aggregate size. Achieve final texture by floating with the appropriate trowel in a figure eight motion; stainless steel trowel for Sto Medium Sand and Sto Fine Sand (pebbled texture finish) and plastic float for Sto Swirl Finish (rilled texture). Once applied, the working time is up to 20 minutes depending upon material, ambient temperatures and surface conditions.

Spray: Apply Sto Essence Finishes with a handheld gravity-feed hopper-type sprayer, texture spray pump machine, or other appropriate equipment such as the StoSilo system or Sto's M-8 Spray Pump. Apply an even coat to ensure full coverage of the surface. (Spray application is not recommended for Sto Swirl Finish.)

IMPORTANT: ALWAYS check color for proper match. If color does not match, STOP–call your Sto representative. For best results always prime

Limitations

- Use Sto Essence Finishes only when surface and ambient temperatures are above 40°F (4°C) and below 100°F (38°C) during application and drying period.
- Sloped surfaces: Refer to Sto details.

cementitious substrates. Apply coating in a continuous application, always working from a wet edge or architectural break to eliminate cold joints. Minor shade variations may occur from batch to batch (refer to batch no. on pail). Avoid installing separate batches side-by-side and avoid application in direct sunlight. Avoid installing new finish adjacent to weathered or aged finish. Sto Corp. will not be responsible for shade or color variation from batch to batch, variation caused by application or substrate deficiencies, or fading resulting from natural causes such as weather. See Tech Hotline Nos. 0694-C, 0893-EC and 1202-CF for helpful tips on prevention of color problems.

Protect installed product from rain, freezing, and continuous high humidity until completely dry. **Curing/Drying**

Sto Essence Finishes dry within 24 hours under normal conditions [70°F (21°C), 50% RH]. Drying time varies with temperature/humidity and surface conditions.

Clean Up

Clean tools and equipment with water immediately after use. Dried material can only be removed mechanically.

- Sto Essence Finishes should not be used on weather-exposed horizontal, below grade or water immersed surfaces.
- For Exterior Insulation and Finish Systems (EIFS), select finish colors with a lightness value of 20 or greater.

Health And Safety

Health Precautions

Product is water-based. As with any chemical construction product, exercise care when handling. WARNING!

Causes eye and skin irritation. **Precautionary Statement** Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention. Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. Spills

Collect with suitable absorbent material such as cotton rags. **Disposal**

Dispose of in accordance with local, state or federal regulations. **Warning**

KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Material Safety Data Sheet for further health and safety information.

LIMITED WARRANTY

This product is subject to a written limited warranty which can be obtained free of charge from Sto Corp.

Refer to Sto Specifications for more complete information on proper use and handling of this product.

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S155-80306, 80307, 80310 Revision: A2.0 Date: 06/2015

Attention

This product is 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. It 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 assembles, or for other construction activities beyond Sto's control. Improper use of this product or use as part of an improperly designed or constructed larger assembly or building may result in serious damage to this product, and to the structure of the building or its components. <u>STO CORP, DISCLAIMS ALL WARRANTIES EXPRESSED</u> <u>OR IMPLEED EXCEPT FOR EXPLICIT LIMITED WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS</u> <u>IN ACCORDANCE WITH STO'S WARRANTY PROGRAMS WHICH ARE SUBJECT TO CHANCE FROM TIME TO TIME.</u> 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, <u>www stocorp.com</u>.