



Sto Flexyl

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Division 7

Sto Flexyl is an acrylic-based, fiber-reinforced, flexible adhesive and water-proofer for use on prepared concrete, masonry, plaster, gypsum and cement sheathing surfaces. Also used as a waterproof EIFS Base Coat. When combined with Portland cement, Sto Flexyl provides multiple functions, including; waterproof adhesive and base coat in Sto Cladding Systems, crack repair material as well as a foundation water-proofer.

Features & Benefits

Polymer-based

Superior flexural strength;
resists cracking

Vapor permeable

Allows substrate to breathe naturally;
resists blisters caused by trapped vapor

Versatile

Can be used as an adhesive/base coat and foundation waterproofer

Solvent-free

Compliant with most state and local VOC requirements; environmentally friendly

Water-based

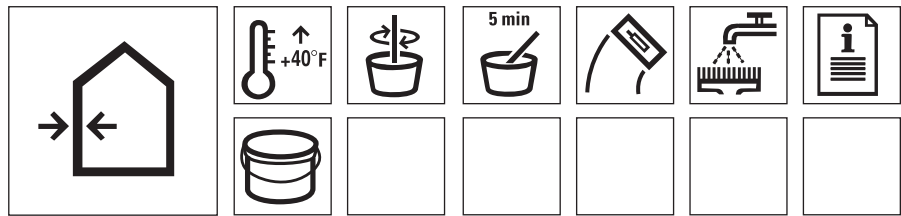
Cleans up with water

Technical Data

TEST	METHOD	CRITERIA	RESULTS
Flexibility	ASTM D-522	½" mandrel bend @: -36, 32, 86° F (-37, 0, 30° C)	Pass
Elongation (%)	ASTM D-412	w/o mesh w/mesh	7.7 10.4
Surface Burning	ASTM E-84	< 25 Flame Spread < 450 Smoke Developed	15 25
Water Penetration	ASTM E-514	10 psf pressure for 8 hours	No water penetration
Water Vapor Permeability (U. S. perms)	ASTM E-96 (modified)	28 days	3.9
Tensile Strength (psi)	ASTM D-412	28 days	470
Tensile Strength w/mesh (psi)	ASTM D-412	28 days	3880
Adhesion to Concrete (psi)	ASTM C-297	28 days	175
Hydrostatic Pressure	DIN 1048	230 foot high water column	No water penetration
Freeze/Thaw Resistance	EIMA 101.01	60 cycles	Pass, no delamination
Water Absorption (%)	ASTM D-570	24 hour immersion	4.5
Abrasion Resistance (grams per weight loss)	ASTM D-4060 Tber CS-10 wheel	3000 cycles 6000 cycles	0.20 0.34

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Coverage

As an adhesive:

80-110 ft² (7.4-9.9 m²) per pail when mixed with required Portland cement.

As a base coat or as a foundation waterproofer:

150-180 ft² (13.9-16.7 m²) per pail.

Coverages may vary depending on application technique and surface conditions.

Packaging

5 gal. pail (19 L)

Shelf Life

12 months, if properly stored and sealed.

Storage

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

Surface Preparation

Concrete and masonry surfaces: Surfaces must be free of all bond-inhibiting materials, including dirt, efflorescence, form oil and other foreign matter. Loose or damaged material must be removed by waterblasting, 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.

Sto Exterior Insulation and Finish Systems (EIFS): Insulation board must be rasped and free of all bond-inhibiting materials, including dust and dirt.

Mixing

Mix Sto Flexyl with an equal amount by weight of Portland cement. Mix 1/2 batch at a time by adding approximately 22-1/2 lbs. (10.2 kg) cement to 1/2 pail of Sto Flexyl in a clean mixing pail. Mix with a clean, rust-free electric drill and paddle. Allow to set approximately five minutes, adjust mix if necessary, then remix to a uniform consistency.

Application

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

As an adhesive for insulation board: Apply a uniform coat of Sto Flexyl on the wall surface up to 1/8" (3 mm) thick. Stipple the Sto Flexyl by lightly pressing the trowel into the wet adhesive then removing the trowel from the surface.

Immediately install insulation board by pressing firmly into the wet adhesive.

As a waterproof base coat: Apply Sto Flexyl to an approximate thickness of 1/8" (3 mm). Work horizontally or vertically in strips of 40" (1016 mm), and immediately embed Sto Mesh into the wet Sto Flexyl by troweling from the center to the edges of the mesh. Avoid wrinkles in the mesh and smooth the base coat to eliminate trowel marks. Sto Flexyl must completely hide the reinforcing mesh when dry. Reapply additional base coat material if necessary to achieve minimum thickness as soon as the first application is dry.

As a foundation waterproofer: Apply Sto Flexyl to a maximum thickness of 1/8" (3 mm) in one application. The application must result in a smooth, closed surface. Repeat application when the first coat is dry, if necessary, to fill all voids, pinholes, etc.

As a crack repair material for cracks up to 1/8" (3 mm) wide in prepared concrete, masonry and plaster: Remove surface contamination, loose and deteriorated material. Embed 6" (152 mm) wide Sto Mesh in Sto Flexyl centered over the crack and feather beyond the edges of the fabric.

NOTE: Sto Primer is required over Sto Flexyl prior to application of Sto Finish Coat.

Protect from rain, freezing and continuous high humidity until completely dry.

Curing/Drying

Sto Flexyl dries within 24 hours under normal [70° (21° C), 50% RH] conditions. Cool, damp conditions extend drying and curing times.

Clean Up

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

Limitations

Use Sto Flexyl only when surface and ambient temperatures are above 40° F (4° C) during application and drying period. Sto Flexyl is not recommended for use on wood surfaces.

Sloped surfaces: minimum required slope is 1:2 (27°) and maximum width is 12" (300 mm). Sto Mesh embedded in Sto Flexyl is required beneath finish coating. Increase slope for northern climates to prevent accumulation of ice/snow and water on surface. Periodic inspection and increased maintenance of finish coating may be required.

Health & Safety

Health Precautions

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

Safety Precautions

Use adequate ventilation. Safety goggles and protective gloves are recommended. Remove contaminated clothing immediately.

First Aid

SKIN CONTACT: Wash thoroughly with soap and water.

EYE CONTACT: Flush immediately with water for 10-15 minutes and contact a physician.

RESPIRATORY PROBLEMS: Remove affected person to fresh air immediately and contact a physician.

HYGIENE: Wash hands immediately after use. Wash clothing before re-use.

Spills

Collect in an appropriate container. Uncured material may be removed with water.

Disposal

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

Warning

KEEP CONTAINER CLOSED WHEN NOT IN USE. KEEP OUT OF 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., 3800 Camp Creek Parkway, Building 1400, Suite 120, Atlanta, GA 30331; Tel: 404-346-3666; Fax: 404-346-3119.

Sto Corp.

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