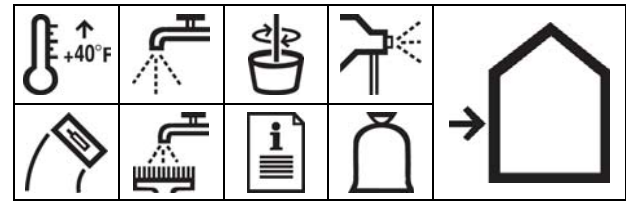


StoPowerwall™ Stucco

80103 StoPowerwall™ Stucco



Technical Data			
REPORT	TEST METHOD	TEST CRITERIA	TEST RESULT
Compressive Strength (psi)	ASTM C-109	28 days	> 3,000
Flexural Strength (psi)	ASTM C-293	28 days	> 600
Tensile Strength (psi)	ASTM C-190	28 days	> 200
Shrinkage	ASTM C-157	Air cure 28 days	> 0.09 %
Accelerated Weathering	ASTM G-26	2,000 hours	No chalking, cracking, checking, crazing, or erosion
Freeze Thaw	ICBO AC 11	10 cycles	No cracking, checking, or crazing
Surface Burning	ASTM E-84	< 25 Flame Spread < 450 Smoke Developed	Flame Spread: <5 Smoke developed: <10
Fire Resistance	ASTM E-119	One hour fire resistive rating	Pass, refer to SBCCI PST & ESI Report No. 9838B and ICBO ES Report No. 3899 for listed assemblies
Wind Loads	ASTM E-330	Allowable design pressure	Refer to SBCCI PST & ESI Report No. 9838B for assemblies

Notes: Final strength characteristics are dependant on jobsite variables such as water/cement ratio, mixing, application, drying conditions and moist curing. Refer to appropriate Sto Product Bulletin for performance data on Sto finishes for use over StoPowerwall Stucco.

StoPowerwall™ Stucco is a controlled blend of Portland cement, fibers and chemical additives. StoPowerwall™ Stucco, when combined with sand and water at the job site, performs like traditional stucco, with enhanced strength and durability. StoPowerwall Stucco is suitable for use in residential and commercial wall construction over prepared concrete and masonry surfaces or over metal plaster bases.

Coverage

3/8" (9.5 mm) thick - 60-80 ft² (5.6-7.4 m²) per bag.
1/2" (12.7 mm) thick - 50-68 ft² (4.6-6.3 m²) per bag.

Coverages may vary depending on application technique and surface conditions.

Packaging

80 lb. bag (36 kg).

Shelf Life

12 months, if properly stored and protected from moisture.

Storage

Store off the ground in a dry area. Protect from extreme heat [90°F (32°C)], freezing, and direct sunlight.

Compliance

IBC and IRC (see ICC ESR 2323) Portland Cement: ASTM C 150
Sand (job site added): ASTM C 897 or C 144
Hydrated Lime: ASTM C 206

Features	Benefits
1 Fiber-reinforced	Resists cracking; high flexural strength
2 StoPowerwall Application	Reduces labor costs
3 Concentrate	Economical; easier to transport to job site
4 Thin and Lightweight	Reduced structural requirements

Surface Preparation

Concrete and masonry surfaces: Surfaces must be slightly scarified and free of all bond-inhibiting materials, including dirt, efflorescence, form oil and other foreign matter. Loose or damaged material must be removed and repaired. Dampen surface prior to application of stucco.

Wood or metal frame construction:
Galvanized diamond mesh lath or welded

wire fabric must be securely attached to construction.
Refer to StoPowerwall Stucco code report for specific assemblies.
Refer to ASTM C-926 for complete details on preparation and required condition of surfaces to receive Portland cement stuccos and recommended construction practices when installing stuccos.

StoPowerwall™ Stucco

Mixing

Use approximately 4 gallons (15 L) of clean water and 200 lbs. (90 kg) of washed plaster sand meeting ASTM C897 or ASTM C144 with each 80 lb. (36 kg) bag of StoPowerwall Stucco. If needed, add water to produce a workable mix, up to a maximum of 6.0 gallons (22 L) per 80 lb. (36 kg) bag. Measure the total amount of water required and use that amount for subsequent batches. For best results use sand complying with ASTM C897. Add 1/2 to 2/3 of the required water, 1/2 of the sand, and one bag of StoPowerwall Stucco in a paddle type mortar mixer. Then add the rest of the sand and sufficient water to

achieve a uniform mix of workable consistency. Mix for 3-5 minutes after all materials are in the mixer. Stucco material can be re-tempered once in the first hour after mixing. Avoid re-tempering after the first hour and discard material older than 1.5 hours. Keep mix ratio consistent from batch to batch and mix each batch separately. **USE ONLY THE AMOUNT OF WATER NECESSARY FOR A WORKABLE MIX.** Use of excess water is detrimental to performance.

Application

Surface and ambient temperatures must be above 40°F (4°C) during application and for 24 hours following set of stucco. Apply with proper spray equipment or a stainless steel trowel, and only to sound and clean, dry, properly prepared, frost-free surfaces. Consult equipment manufacturer for spray/pump application.

Metal Plaster Bases: Must be installed in conformance with ASTM C-1063. Apply in one or two coats to a minimum total thickness of 1/2 inch (13 mm), or two coats to a maximum total thickness of 7/8 inch (22 mm). Refer to code compliance report.

Concrete and Masonry: Apply StoPowerwall Stucco in one or two coats to a maximum thickness of 5/8 inch (16 mm).

For two coat applications scratch the first coat horizontally and apply the second coat as soon as the first coat is firm enough to receive it. Alternatively, moist cure the first coat up to 48 hours and dampen the scratched surface with

water immediately before applying the second coat.

Level the stucco surface with a darby or stainless steel trowel to achieve a smooth, plumb surface.

Curing/Drying

Moist cure by lightly fogging the installed area for at least 48 hours after the stucco takes initial set (usually within the first 1 to 4 hours after installation). Hot, dry, or windy weather requires more frequent moist curing to avoid rapid dehydration of stucco. Allow final stucco application to completely dry before applying primer or finish.

Clean Up

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

Limitations

- Do not install StoPowerwall Stucco over stucco accessories or joints in construction
- Do not install at temperatures below 40°F (4°C)
- Not recommended as a finish coating
- Some cracking and efflorescence are inherent in Portland cement stuccos. These are not product defects.
- Refer to code compliance report and ASTM C-926 for complete details on preparation and required condition of surfaces to receive Portland cement stuccos and recommended construction practices when installing stuccos.

Health And Safety

Health Precautions

Contains Portland cement and crystalline-free silica. Avoid breathing dust. As with any chemical construction product, exercise care when handling.

Safety Precautions

Use adequate ventilation. Use of a NIOSH/MSA approved dust respirator, safety goggles and protective gloves is recommended.

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 THE REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. Consult the Material Safety Data Sheet on www.stocorp.com 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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S155-80103
Revision: 001
Date: 11/2009



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 assemblies, 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. **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.