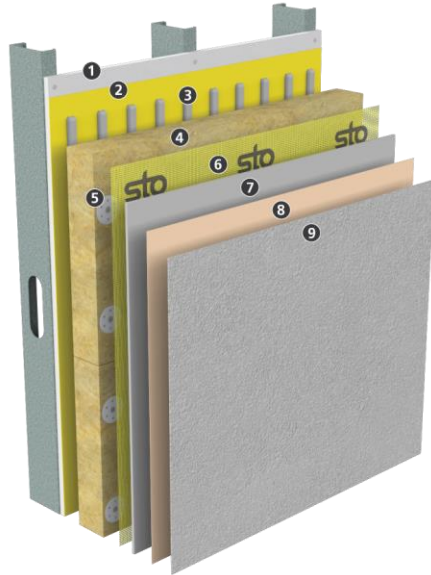


StoTherm® ci Mineral

Energy efficient, fire resistant, decorative and protective wall cladding



1) Substrate (by others): Glass mat gypsum sheathing in compliance with ASTM C1177, code compliant OSB or plywood sheathing, concrete or concrete masonry, existing structurally sound, uncoated brick or other masonry wall construction.

2) Air and Moisture Barrier: StoGuard®

3) Adhesive: Sto BTS Plus

4) Insulation: Owens Corning Thermafiber® CI-C SC18

5) Attachment System¹: Sto Thermo Dowel with Sto Thermo Cap Mineral

6) Reinforcing Mesh: Sto Mesh (embedded in Sto BTS Plus)

7) Base Coat: Sto BTS Plus – minimum 2 coats

8) Primer: StoPrime Sand or Smooth (optional)

9) Textured Finish: Stolit or Sto Specialty Finish
Sto Custom Cast Finish: StoCast Wood or StoCast Brick

1. Fastening pattern differs with design wind pressure requirements. Surface mount fasteners required with 2 inch (51 mm) thick insulation. 3 inch (76 mm) and thicker insulation uses countersunk fasteners.

System Description

StoTherm® ci Mineral is a decorative and protective exterior wall system that combines superior air and weather tightness with excellent thermal performance and fire resistance. It incorporates noncombustible continuous exterior insulation and a continuous air and moisture barrier with Sto's high performance finishes to produce an advanced high performance wall cladding assembly.

Uses

StoTherm® ci Mineral can be used in residential or commercial wall construction.

Features	Benefits
Specially designed thermal dowel attachment system	Limits thermal conductivity to the exterior
Fully integrated high density mineral wool core	Continuous exterior thermal control layer that resists fire and temperatures in excess of 2000°F (1093°C)
Fully integrated seamless air and moisture barrier	Fully compatible air, water, and vapor control layer from a single source
Virtually unlimited finish color selection in multiple textures	Color and texture design freedom

Properties

Weight (not including backup wall – sheathing, studs, etc.)	< 6 lb/ft ² (29.3 kg/m ²)
Insulation thickness	2, 3 and 4 inches (51, 76 and 102 mm)
R value per inch (RSI-value)	4.0 ft ² ·h·°F / Btu (0.705 m ² ·K / W)
Noncombustible, fire resistant insulation	Meets requirements for use on all types of construction

Warranty

Ten years

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Maintenance
Requires periodic cleaning to maintain appearance, repair of cracks and impact damage if they occur, recoating to enhance appearance of weathered finish. Sealants and other façade components must be maintained to prevent water infiltration into or behind the system.
Precautions and Limitations
Insulation board thickness: 2, 3, and 4 inches (51,76, and 102mm).
Keep insulation board dry during construction and while in service. R-value, adhesion and other properties can be compromised if insulation stays wet. Protect with tenting, base coat, or other protection to maintain insulation board
Wind load resistance: structural back-up wall assembly must be designed for maximum allowable deflection of L/240, normal to the plane of the wall and designed to resist wind loads.
<p>Ultimate wind load resistance of tested StoTherm ci Mineral assemblies:</p> <ul style="list-style-type: none"> • Assembly No. 1: 9 countersunk Sto Thermo Dowels per 4 in (102m) thick insulation board: +253 lb/ft², - 126 lb/ft², 18ga x 6in steel studs at 16 in oc (+12.1 kPa, -6.03 kPa, 1mm x 152mm steel studs at 406mm oc, 16mm gypsum sheathing attached at 203mm oc along studs) • Assembly No. 2: 9 surface mount Sto Thermo Dowels per 2 in (51m) thick insulation board: +253 lb/ft², - 77 lb/ft², 18ga x 6in steel studs at 16 in oc (+12.1 kPa, -3.68 kPa, 1mm x 152mm steel studs at 406mm oc, 16mm gypsum sheathing attached at 203mm oc along studs) • Assembly No. 3: 9 countersunk Sto Thermo Dowels per insulation board, 6 dowels with Sto Thermo Dowel Washers VT2G : +292 lb/ft², - 181 lb/ft², 18ga x 6in steel studs at 16 in oc, 1/2 in glass mat gypsum sheathing attached at 8in oc along studs (+13.9 kPa, -8.66 kPa, 1mm x 152mm steel studs at 406mm oc, 16mm gypsum sheathing attached at 203mm oc along studs) • Assembly No. 4: 8 surface mount Sto Thermo Dowels per insulation board attached into OSB: +262 lb/ft², - 70 lb/ft², 2x6 wood studs at 16 in oc, 7/16 in OSB sheathing attached 6in oc along edges and 12in oc along intermediate studs (+12.5 kPa, -3.35kPa, 38 x 140mm wood studs at 406mm oc, 11mm OSB sheathing attached 152mm oc along edges and 305mm oc along intermediate studs)
Refer to Sto Design Guide for fastening details to achieve ultimate loads.
Impact resistance: heavy reinforcing mesh layer (11 oz/yd ² [373 g/m ²]) or other design adjustments recommended for ground floors and other areas at risk of impacts or abuse.
Not for use on horizontal or low slope surfaces, below grade, roofs or roof-like surfaces, or in areas of water immersion, pooling or ponding water. For use on vertical above grade walls only.
Aesthetics: slight surface irregularities may be apparent in the finished wall surface for brief periods during the day in critical light. Smooth or fine texture finishes are discouraged. Minimum 1.5 mm (Medium) or heavier textures are preferred to hide surface imperfections. On some occasions face mount dowels may “read” through the finished wall surface as the building ages. This can be remedied by recoating (or prevented by using countersunk dowels).
Air Barrier, insulation board, and basecoat materials are not intended for permanent weather exposure. Refer to specific component product bulletins and packaging for other limitations that may apply involving use, handling and storage of component materials.

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Sustainable Design	
Regulatory Compliance and Standards Testing	
ASTM C612	Insulation conforms to applicable standard for board thermal insulation
NFPA 220	Noncombustible insulation as defined by NFPA 220
ASTM E84	Insulation has 0 flame spread, 0 smoke development
IBC, IRC, ASTM E 2570	System WRB conforms with requirements of 2015 IBC Section 1408, 2018 IBC Section 1407, and 2015 and 2018 IRC Section R703.9.2
IBC, IRC, ASTM E2568	System conforms with requirements of 2015 IBC Section 1408, 2018 IBC Section 1407, 2015 and 2018 IRC Section R703.9.2
IBC, IRC, ASTM E2273	System conforms with minimum 90% drainage efficiency requirement of 2015 IBC Section 1408, 2018 IBC Section 1407, and IRC Section R703.9.2
IECC	System meets requirements for continuous insulation and ci R-value requirements for above grade walls of 2015 and 2018 IECC Section 402.2 and contributes to U-value for above grade walls when figuring compliance on the basis of U-factor
IECC, ASTM E2178	Air barrier component complies with 2015 and 2018 IECC Section C402.5 as an air barrier material
NFPA 285	System complies with requirements ¹ for use on all Types of construction without height limitation (other than height restrictions governed by wind pressure limits of the system)
NFPA 268	System does not ignite with exposure to radiant heat ¹ and complies with requirements for use on all Types of construction without height or setback limitations (other than height restrictions governed by wind pressure limits of the system)
ASTM E119	Maintains hourly fire resistance rating of concrete, concrete masonry, and non-load bearing steel frame, wall assemblies

<p>Sto Corp. 3800 Camp Creek Parkway Building 1400, Suite 120 Atlanta, GA 30331</p> <p>Tel: 404-346-3666 Toll Free: 1-800-221-2397 Fax: 404 346-3119</p> <p>www.stocorp.com</p>	<p>SB-5600M Revision: 003 Date: 11/2021</p>	<p style="text-align: center;">Attention</p> <p>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 Canada Ltd. 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 this product, and to the structure of the building or its components. STO CANADA LTD. 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 Canada Ltd. website, www.stocorp.ca.</p>
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