

# StoTherm<sup>®</sup> ci Mineral

Decorative cladding with continuous noncombustible exterior insulation and air/moisture barrier for thermal, air and moisture control



**1)** Substrate (by others): Glass mat gypsum sheathing in compliance with ASTM C 1177, code compliant OSB or plywood sheathing, concrete or concrete masonry, existing structurally sound, uncoated brick or other masonry wall construction.

<b>2)</b>	StoGuard <sup>®</sup> Air and Moisture Barrier
<b>3)</b>	Drainage Component: StoDrainScreen 10mm
<b>4)</b>	Insulation: Owens Corning Thermafiber <sup>®</sup> CI-C SC18
<b>5)</b>	Attachment System <sup>1</sup> : StoThermo Dowel with Thermal Plug or Cap
<b>6)</b>	Reinforcing Mesh: Sto Mesh (embedded in Sto BTS Plus)
<b>7)</b>	Base Coat: Sto BTS Plus – minimum 2 coats
<b>8)</b>	Primer (optional): StoPrime Sand or Smooth
<b>9)</b>	Textured Finish: Stolit

1. Fastening pattern differs with design wind pressure requirements. Refer to Sto Design Guide.

## System Description

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

## Uses

StoTherm ci Mineral can be used in residential or commercial wall construction where energy efficiency, superior aesthetics, and air and moisture control are essential in the climatic extremes of Canada.

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 1093°C (2000°F)
Fully integrated seamless air and moisture barrier	Fully compatible air, water, and vapour control layer from a single source
Virtually unlimited finish colour selection	Colour and texture design freedom

## Properties

<b>Weight (not including back-up wall – studs, sheathing, etc.)</b>	Less than 29.3 kg/m <sup>2</sup> (6 lb/ft <sup>2</sup> ) w 100mm (4 in) insulation
<b>Nominal Insulation Thickness</b>	50, 75, 100mm (2, 3, 4 in)
<b>RSI (R-value)</b>	<b>50mm (2in)</b> 1.41 m <sup>2</sup> ·K/W (8.0 ft <sup>2</sup> ·h·°F / Btu)
	<b>75mm (3in)</b> 2.11 m <sup>2</sup> ·K/W (12.0 ft <sup>2</sup> ·h·°F / Btu)
	<b>100mm (4in)</b> 2.82 m <sup>2</sup> ·K/W (16.0 ft <sup>2</sup> ·h·°F / Btu)
<b>Max Ultimate Wind Load Resistance</b>	+12.1 kPa (+253 lb/ft <sup>2</sup> ) -6.03 kPa (-126 lb/ft <sup>2</sup> )
<b>Noncombustible, fire resistant insulation</b>	Meets requirements for use on all types of construction

## Warranty

10 year Limited Warranty

## Maintenance

Requires periodic cleaning to maintain appearance, repair to 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.

# StoTherm<sup>®</sup> ci Mineral

Decorative cladding with continuous noncombustible exterior insulation and air/moisture barrier for heat, air and moisture control

## Precautions and Limitations

Nominal insulation board thickness: 2, 3, and 4 inches (50,75, and 100mm).

Keep insulation board dry during construction and while in service. RSI (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 integrity and properties.

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. Stud spacing 406mm (16 in) on center maximum. Ultimate wind load resistance: positive 12.1 kPa (253 lb/ft<sup>2</sup>), negative 6.03 kPa (-126 lb/ft<sup>2</sup>). Refer to Sto Design Guide for fastening details to achieve ultimate loads.

Impact resistance: heavy reinforcing mesh layer 373 g/m<sup>2</sup> (11 oz/yd<sup>2</sup>) 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 surface 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.

## Sustainable Design

### Regulatory Compliance and Standards Testing

<b>CAN/ULC S716.1</b>	Liquid-applied water-resistive barrier (LA-WRB) meets performance requirements
<b>ASTM E2178 (NBC Div. B Clause 5.4.1.2.(1)(a))</b>	Liquid-applied water-resistive barrier (LA-WRB) meets performance requirements as an air barrier material
<b>ASTM E2357 [NBC Div.B Clause 9.36.2.9.(1)(c)]</b>	Liquid-applied water-resistive barrier (LA-WRB) meets performance requirements for airtightness
<b>ASTM E612, CAN/ULC S702</b>	Insulation conforms to Standard for Mineral Fibre Thermal Insulation for Buildings
<b>CAN/ULC S102</b>	Insulation has 0 flame spread, 0 smoke development
<b>CAN/ULC S114</b>	Insulation and base coat materials are noncombustible
<b>ASTM E330</b>	System tested for ultimate wind load resistance
<b>CAN/ULC S134</b>	System is exempt from CAN/ULC S134 and NBC Article 3.2.3.8 testing that is typically required for EIFS utilizing foam plastic insulation, and is permitted in noncombustible construction without sprinkler, height or setback limitations
<b>CAN/ULC S101</b>	System maintains hourly fire-resistance rating of concrete, concrete masonry, and non-load bearing steel frame wall assemblies
<b>ASTM E2486</b>	System meets requirements for Medium Impact resistance with one layer Sto Mesh, and Ultra-High Impact resistance with one layer Sto Intermediate Mesh
<b>ASTM E2568</b>	System meets performance requirements for weathering, freeze-thaw resistance, resistance to salts, water, and water penetration resistance

<p><b>Sto Canada Ltd.</b> 1821 Albion Road Unit 1 - 2 Etobicoke, Ontario M9W 5W8</p> <p>Tel: 416-855-0460 Toll Free: 1-800-221-2397 Fax: 404 346-3119</p> <p><b>stocorp.ca</b></p>	<p><b>SB-CA-5600M</b> Revision: 003 Date: 01/2019</p>	<p style="text-align: center;"><b>Attention</b></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. <b>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.</b> 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, <a href="http://www.stocorp.ca">www.stocorp.ca</a>.</p>
--	---	--