StoTherm® ci XPS Lotusan
Decorative cladding with continuous insulation and continuous air/moisture barrier for heat, air and moisture control

System Description
StoTherm ci XPS Lotusan is a decorative and protective exterior wall cladding that provides superior air and weather tightness with excellent thermal performance and durability. It incorporates continuous insulation and a continuous air/moisture barrier with Sto's high performance finishes in a fully tested wall cladding assembly.

Uses
StoTherm ci XPS Lotusan can be used in residential or commercial wall construction where energy efficiency, superior aesthetics, air and moisture control are essential. The superior compressive strength and low water absorption of XPS insulation make it appropriate for institutional, or other projects where increased durability is desired.

Features
- Design versatility: Aesthetic and curb appeal easy to achieve
- Self-cleaning properties: Reduced maintenance, extended time to recoat
- Continuous XPS insulation, R-5 per inch: Increased durability, reduced heating and cooling costs
- Quick set adhesive, no mechanical fasteners: Fast installation, no thermal bridging
- Continuous air and moisture barrier: Protects against mold and moisture problems
- Fully tested compatible components: No experimenting with untested designs

Properties
- Weight (not including sheathing and frame): < 2 psf (10 kg/m²)
- Thickness (insulation): 1 - 6 inches (25-152 mm)
- R-value (not including sheathing and frame): 5.0 – 30 ft²·°F/Btu (0.88 – 5.28 m²·K / W)
- Wind Load Resistance: Tested up to ± 175 psf (8.37 kPa)
- Construction Types: I-V, NFPA 285 tested for Types I-IV

Warranty
15 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.

Substrate: Glass Mat Gypsum sheathing in compliance with ASTM C 1177, Exterior or Exposure I wood-based sheathing (plywood or OSB), code compliant concrete, concrete masonry, or portland cement plaster, existing structurally sound, uncoated brick or other masonry wall construction.

1) StoGuard® Air and Moisture Barrier
2) Sto TurboStick™ Spray Foam Adhesive
3) Foamular® CI-C or Dow STYROFOAM™ Panel Core 20 Insulation Board
4) Sto Mesh (embedded in Sto Base Coat)
5) Sto BTS® Xtra Base Coat
6) Sto Primer Sand (optional)
7) Sto Textured Finish: Stolit® Lotusan®
Precautions and Limitations

Minimum insulation board thickness 1 inch (25 mm). Maximum insulation board thickness 6 inches (152 mm). Hourly rated walls: maximum thickness limited to 2.75 inches (70 mm) over CMU, concrete, and non-load bearing frame walls. Thickness in excess of 4 inches (102 mm) requires two layers of insulation.

Structural back-up wall must be level to within ¼ inch in 10 ft (6 mm in 3.0 m)

Wind load resistance: 175 psf (8.37 kPa) ultimate loads achieved. Ultimate wind load resistance also depends on sheathing, sheathing attachment, and stiffness of supporting construction. Design for maximum allowable deflection of L/240.

Impact resistance: supplemental reinforcing mesh layers, cement board overlay or other design adjustments may be prudent for areas adjacent to heavy pedestrian traffic or other areas of high impact or abuse. Refer to Sto Guide Details.

For use on vertical above grade walls only. Do not use below grade or on roofs or roof-like surfaces.

Insulation material is flammable. Keep away from flame, ignition sources, high heat and temperatures in excess of 165°F (74° C).

Dark finish colors with LRV (Light Reflectance Value) < 20 are not recommended.

Air Barrier, insulation board, and base coat materials are not intended for prolonged weather exposure. Allow 180 days maximum between application of air barrier and insulation board.

Refer to specific component product bulletins and packaging for other limitations that may apply involving, handling and storage of component materials.

Sustainable Design

Air Quality and VOC Compliance

All finish coatings, adhesives, air barrier joint treatments and coatings meet US EPA (40 CFR 59) and SCAQMD (Rule 1113) emission standards for architectural coatings.

LEED Credit Eligibility

System has high potential for LEED and other sustainability program credits based on efficient and effective use of continuous exterior insulation and resulting reductions in greenhouse gas emissions.

Regulatory Compliance and Standards Testing

| ICC ESR 1748 covering StoTherm NExT Systems | Complies with 2009, 2012, 2015 IBC, IRC and IECC (ICC ESR revision pending) |
| ICC ESR No. 1233 covering StoGuard Air & Moisture Barrier | Complies with 2009, 2012, 2015 IBC, IRC and IECC |
| ICC AC 212 | Complies with abbreviated format Acceptance Criteria For Water-Resistant Barrier Coatings used as Water-Resistant Barriers over Exterior Sheathing |
| ASHRAE 90.1-2016¹ | Complies with Section 5, Building Envelope, air barrier and continuous insulation requirements |
| ASTM E 2357² | Air/Moisture barrier meets air leakage resistance criteria of ≤ 0.04 cfm/lft² at 1.57 psf (0.2 L/s•m² at 75 Pa) |
| NFPA 285³ | Meets flame propagation criteria for use on Types I, II, III, IV construction with up to 6 inches (152 mm) of Foamlux® CI-C or Dow STYROFOAM™ Panel Core 20 insulation board |
| ASTM E 119⁴ | Meets requirements for 1-hour rated wall assembly |

¹ Energy Standard for Buildings Except Low-Rise Residential Buildings
² Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
⁴ Standard Test Methods for Fire Test of Building Construction and Materials

Attention

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 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 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 Corp. DISCLAIMS ALL WARRANTIES EXPRESS OR IMPLIED EXCEPT FOR EXPLICITLY LIMITED WRITTEN WARRANTIES ISSUED TO AND ACCEPTED BY BUILDING OWNERS IN ACCORDANCE WITH IT. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE HEREBY DISCLAIMED. THE USE OF THIS DOCUMENT SUBJECT TO CHANGE FROM TIME TO TIME. For the latest, 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.