

StoVentec®

Certification No. 9000

Statement of Testing

This is to certify that the StoVentec Systems and their components have been tested by accredited independent third-party test agencies or justified in engineering judgements by qualified engineers as presented below:

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STOVENEC GLASS – SYSTEM TESTS

Test	Method	Criteria	Result
Fire Spread	NFPA 285	No excess flame spread vertically or laterally; flame spread and thermocouple temperature readings within specified limits	Pass
Fire Spread	CAN/ULC S134	Flaming not more than 5m above the opening; avg heat flux < 35kW/m ² at 3.5m above the opening	Pass
Fire Resistance	ASTM E119	Maintain the fire resistance rating over existing hourly-rated load-bearing or non-load-bearing wall assemblies	Complies with min. 2in (51mm) mineral wool continuous insulation
Water Penetration Resistance and Ventilation	AAMA 509	Report results	Water Penetration Classification: W1 Ventilation Classification: V2
Wind Load Resistance	ASTM E330	Report ultimate load capacity (system design determines max. capacity)	-288 lb/ft ² (-13.8 kN/m ²)

STOVENEC GLASS – COMPONENT TESTS

Test	Method	Criteria	Result
Glass in Building	EN 12150 or 14179	Thermally toughened safety glass	Complies
Tensile Bond Strength	DIN 18156-2, Section 5.2.2	Glass adhesive to Carrier Board: ≥ 36 psi (0.25 N/mm ²)	Pass

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STOVENTEC FIBER CEMENT – COMPONENT TESTS

Test	Method	Criteria	Result
Fiber-cement specification	ASTM C1186	Type A, Grade IV	Complies
Surface Burning Characteristics	ASTM 84	Flame Spread Index: 0 Smoke Developed Index: 0 or 5	Complies
Non-combustibility	ASTM E136/E2652	With sample weight loss 50% or less: - Temp rise surface and interior: $\leq 30^{\circ}\text{C}$ - No flaming after 30 seconds	Complies
Indentation Resistance	ASTM C1629/D5420	Impact Energy 72 in-lb Class 1 ≤ 0.150 inch indentation depth Class 2 ≤ 0.100 inch Class 3 ≤ 0.050 inch	8 and 10mm thick SVFC comply with Class 2

STOVENTEC FIBER CEMENT – SYSTEM TESTS

Test	Method	Criteria	Result
Fire Spread	NFPA 285	No excess flame spread vertically or laterally; flame spread and thermocouple temperature readings within specified limits	Fiber-cement non-combustible per ASTM E136/E2652 ¹
Fastener pull-through	ASTM D1037	Report results Five samples each 8mm thick Primara Line and Strata Line material with 10mm pilot holes and SFS SSO D15 Rivets	Primara avg: 447 lb _f Strata avg: 397 lb _f
Wind Load Resistance	TAS 202-203 (Florida HVHZ test protocols)	TAS 202: ½ design, design, and overload (1.5x design) pressures held for 30 seconds TAS 203 cyclic pressures: -600 @ 50% of design pressure -70 @ 60% of design pressure -1 @ 130% of design pressure	+/-115 psf (5.51 kN/m ²) (highest design pressure tested)
Wind Load Resistance	ASTM E330	Report ultimate load capacity (system design determines max. capacity)	-196 lb/ft ² (-9.38 kN/m ²) (highest ultimate load tested)

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Water Penetration Resistance and Ventilation	AAMA 509	Report results	Water Penetration Classification: W2 Ventilation Classification: V3
Impact Resistance – Hard Body and Soft Body – See the document <i>StoVentec Fiber Cement Impact Resistance Study</i>			

¹Engineering Judgement by Jensen Hughes: noncombustible or NFPA 285 complying exterior veneer will not contribute to vertical or lateral fire propagation with assemblies containing Sto AWRBs and minimum 2 inch thick mineral wool insulation.

STOVENTEC RENDER – SYSTEM TESTS

Test	Method	Criteria	Result
Fire Spread ¹	NFPA 285	No excess flame spread vertically or laterally; flame spread and thermocouple temperature readings within specified limits	Pass
Fire Spread ¹	CAN/ULC S134	Flaming not more than 5m above the opening; avg heat flux < 35kW/m ² at 3.5m above the opening	Pass
Fire Resistance	ASTM E119	Maintain the fire resistance rating over existing hourly-rated load-bearing or non-load-bearing wall assemblies	Complies with min. 2in (51mm) mineral wool continuous insulation
Water Penetration Resistance and Ventilation	AAMA 509	Report results	Water Penetration Classification: W1 Ventilation Classification: V9
Wind Load Resistance	ASTM E330	Report ultimate load capacity	-160 lb/ft ² (-7.66 kN/m ²)

1. StoVentec Glass (worst case) tested. Thus, StoVentec Render deemed to pass based on engineering analysis. Refer to Intertek Design Listings [Sto/CWP 30-01](#) and [Sto/CWP 25-02](#).

STOVENTEC RENDER – COMPONENT TESTS

Test	Method	Criteria	Result
Flame Spread (lamina components)	ASTM E84	Flame spread: < 25 Smoke Development: < 450	FS: < 5 SD: < 20
Accelerated ¹ Weathering	ASTM G153	No deleterious effects after 2000 hours when viewed under 5X magnification	No deleterious effects after 5000 hours
Freeze/Thaw ¹	ASTM E2485	No deleterious effects after 10 cycles	No deleterious effects

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Resistance			after 10 cycles
Impact Resistance	ASTM E2486	Impact classification rating "High" with impact energy of 90 inch-lb (drop height 22.5" with 10 drops)	No broken mesh
Salt Spray Resistance ¹	ASTM B117	No deleterious effects after 300 hour exposure	No deleterious effects after 500 hours
Water Penetration Resistance ¹	ASTM E331	No water penetration in the field of the wall, at perimeter of openings, or at intersections with dissimilar materials	No water penetration
Water Resistance ¹	ASTM D2247	No deleterious effects after 14 day exposure	No deleterious effects after 28 days
Alkali Resistance of Reinforcing Mesh	ASTM E2098	120 pli (21 N/mm) minimum	Greater than 120 pli (21 N/mm)

1. StoVentec lamina tested over foam plastic insulation material

STOVENTEC FOR MASONRY VENEER FACADES – SYSTEM TESTS

Test	Method	Criteria	Result
Fire Spread ¹	NFPA 285	No excess flame spread vertically or laterally; flame spread and thermocouple temperature readings within specified limits	Pass
Fire Spread ¹	CAN/ULC S134	Flaming not more than 5m above the opening; avg heat flux < 35kW/m ² at 3.5m above the opening	Pass
Fire Resistance	ASTM E119	Maintain the fire resistance rating over existing hourly-rated load-bearing or non-load-bearing wall assemblies	Complies with min. 2in (51mm) mineral wool continuous insulation
Water Penetration Resistance and Ventilation ²	AAMA 509	Report results	Water Penetration Classification: W1 Ventilation Classification: V9
Wind Load Resistance ²	ASTM E330	Report ultimate load capacity	-160 lb/ft ² (-7.66 kN/m ²)

1. StoVentec Glass (worst case) tested. Thus, Sto Ventec for Masonry Veneer Facades deemed to pass based on engineering analysis. Refer to Intertek Design Listings [Sto/CWP 30-01](#) and [Sto/CWP 25-02](#).

2. Results based on testing of StoVentec Render

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STOVENTEC FOR MASONRY VENEER FACADES – COMPONENT TESTS

Test	Method	Criteria	Result
Bond Strength StoColl KM Adhesive Mortar	ANSI 118.4	Meet minimum strength requirements	Meets shear bond strength requirements for all tile types in dry state, after water immersion, and after freeze/thaw cycling
Flame Spread (lamina components)	ASTM E84	Flame spread: < 25 Smoke Development: < 450	FS: < 5 SD: < 20

Thomas E. Remmele

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