



TECHNICAL DATA SHEET

Outsulation® System Performance Criteria

An Exterior Wall Insulation and Finish System That Incorporates Continuous Insulation
DS856

Outsulation is a fully tested, code compliant system consisting of an adhesive, continuous insulation (CI), reinforced base coat and a durable exterior finish. The below tables represent the numerous tests that this wall assembly has been subjected to, as well as the results.

1. The Outsulation System shall have been tested as follows:
 - a. Durability

TEST	TEST METHOD	CRITERIA	RESULTS
Abrasion Resistance	ASTM D 968	No deleterious effects after 528 quarts (500 liters)	No deleterious effects after 1056 quarts (1000 liters)
Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects after 2000 hours	No deleterious effects after 5000 hours
	ASTM G 154 Cycle 1 (QUV)		No deleterious effects after 5000 hours
Freeze-Thaw	ASTM E 2485 Method A	No deleterious effects after 60 cycles	Passed - No deleterious effects after 90 cycles
	ASTM C 67 modified	No deleterious effects after 60 cycles	Passed - No deleterious effects after 60 cycles
	ASTM E 2485 Method A	No deleterious effects after 10 cycles	Passed - No deleterious effects after 10 cycles
Mildew Resistance	ASTM D 3273	No growth during 28 day exposure period	No growth during 60 day exposure period
Water Resistance	ASTM D 2247*	No deleterious effects after 14 days exposure	No deleterious effects after 42 days exposure
Taber Abrasion	ASTM D 4060	N/A	Passed 1000 cycles
Salt Spray Resistance	ASTM B 117*	No deleterious effects after 300 hours exposure	No deleterious effects after 1000 hours exposure
Water Penetration	ASTM E 331*	No water penetration beyond the inner-most plane of the wall after 2 hours at 6.24 psf (299 Pa)	Passed
Water Vapor Transmission	ASTM E 96 Procedure B	Vapor permeable	EPS 5 perm-inch Base Coat* 40 Perms Finish** 40 Perms
* Base Coat perm value based on Dryvit Genesis			
** Finish perm value based on Dryvit Quarzputz			

- b. Structural

TEST	TEST METHOD	CRITERIA	RESULTS
Tensile Bond	ASTM C 297/E 2134*	Minimum 15 psi (104 kPa) substrate or insulation failure	Minimum 19.1 psi (132 kPa)
Transverse Wind Load	ASTM E 330*	Withstand positive and negative wind loads as specified by the building code	Minimum 90 psf (4.3 kPa) ¹ 16 in o.c. framing, 1/2 in sheathing screw attached at 8 in (203 mm) o.c.
* ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems			
1. All Dryvit components remain intact – for higher wind loads contact Dryvit Systems, Inc.			

c. Impact Resistance: In accordance with ASTM E 2486*

Reinforcing Mesh/Weight oz/yd ² (g/m ²)	Minimum Tensile Strengths	EIMA Impact Classification	EIMA Impact Range in-lbs (Joules)		Impact Test Results in-lbs (Joules)	
Standard - 4.3 (146)	150 lbs/in (27 g/cm)	Standard	25-49	(3-6)	36	(4)
Standard Plus - 6 (203)	200 lbs/in (36 g/cm)	Medium	50-89	(6-10)	56	(6)
Intermediate™ - 12 (407)	300 lbs/in (54 g/cm)	High	90-150	(10-17)	108	(12)
Panzer 15 ¹ - 15 (509)	400 lbs/in (71 g/cm)	Ultra High	>150	(>17)	162	(18)
Panzer 20 ¹ - 20.5 (695)	550 lbs/in (98 g/cm)	Ultra High	>150	(>17)	352	(40)
Detail Mesh Short Rolls - 4.3 (146)	150 lbs/in (27 g/cm)	N/A	N/A	N/A	N/A	N/A
Corner Mesh™ - 7.2 (244)	274 lbs/in (49 g/cm)	N/A	N/A	N/A	N/A	N/A

* It shall be colored blue and bear the Dryvit logo for product identification

1. Shall be used in conjunction with Standard Mesh (recommended for areas exposed to high traffic)

d. Fire performance

TEST	TEST METHOD	CRITERIA	RESULTS
Fire Resistance	ASTM E 119	No effect on the fire resistance of a rated wall assembly	Passed 1 & 2 hour Non-loading Passed 2-hour load Bearing over wood framing
Ignitability	NFPA 268*	No ignition at 12.5 kw/m2 at 20 min.	Passed
Full Scale Multi-Story Fire Test	UBC Std. 26-4 (formerly 17-6)	<ol style="list-style-type: none"> Resist vertical spread of flame within the core of the panel from one story to the next Resist flame propagation over the exterior surface Resist spread of vertical flame over the interior surface from one story to the next Resist significant lateral spread of flame from the compartment of fire origin to adjacent spaces 	Passed
Intermediate Multi-Story Fire Test	NFPA 285* (UBC 26-9)	<ol style="list-style-type: none"> Resist flame propagation over the exterior surface Resist vertical spread of flame within combustible core/component of panel from one story to the next Resist vertical spread of flame over the interior surface from one story to the next Resist lateral spread of flame from the compartment of fire origin to adjacent spaces 	Passed over steel framing and wood framing
* ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems			

5. The Outsulation components shall be tested for:

a. Fire

TEST	TEST METHOD	CRITERIA	RESULTS
Surface Burning Characteristics	ASTM E 84*	All components shall have a: Flame Spread < 25 Smoke Developed < 450	Passed
* ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems.			

b. Durability

TEST	TEST METHOD	CRITERIA	RESULTS
Reinforcing Mesh Alkali Resistance of Reinforcing Mesh	ASTM E 2098*	> 120 pli (21dN/cm) retained tensile strength after exposure	Passed
EPS (Physical Properties) Density	ASTM C 303, D 1622	0.95-1.25 lb/ft ³ (15.2-20.0 kg/m ³)	Passed
Thermal Resistance	ASTM C 177, C 518	4.0 @ 40°F (4.4°C) 3.6 @ 75°F (23.9°C)	Passed Passed
Water Absorption	ASTM C 272	2.5 % max. by volume	Passed
Oxygen Index	ASTM D 2863	24% min. by volume	Passed
Compressive Strength	ASTM D 1621 Proc. A	10 psi (69 kPa) min.	Passed
Flexural Strength	ASTM C 203	25 psi (172 kPa) min.	Passed
Flame Spread	ASTM E 84*	25 max.	Passed
Smoke Developed	ASTM E 84*	450 max.	Passed
* ASTM E 2568 Standard Specification for PB Exterior Insulation and Finish Systems.			

Information contained in this product sheet conforms to the standard detail recommendations and specifications for the installation of Dryvit products as of the date of publication of this document and is presented in good faith. Dryvit assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, contact Dryvit.

For more information on Dryvit or Continuous Insulation, [click here](#).

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