



GREENGUARD® COMPETITIVE COMPARISON

High-Performance Air Barrier Building Wraps

Prevention of air infiltration allows cavity insulation to achieve rated insulation efficiency. It also blocks moisture carried by air from infiltrating the wall. High-performance building wraps are made of material that is an air barrier and a superior barrier to direct water penetration. Specific barrier properties shown below are indicative of performance of the material in preventing air and water infiltration. Durability properties indicate the ability of the product to remain intact on the wall until covered by cladding.

		GreenGuard®	Tyvek®				
Property	Test Method	RainDrop® 3D Building Wrap ¹	HomeWrap® ²	CommercialWrap® ³	DrainWrap® ⁴	Commercial Wrap® D ⁵	
Water Barrier	Water Penetration Resistance	AATCC-127 (cm H ₂ O)	>500	250	250	210	235
	Water Resistance	ASTM D 779 (minutes)	>120	Not Published	Not Published	Not Published	Not Published
Air Barrier	Air Permeance	ASTM E 2178 (L/s/m ² @75 Pa) (cfm/ft ² @ 1.57 psf)	0.001 0.000	.004	.001	.004	.002 .000
Drainage Efficiency	Drainage Efficiency	ASTM E 2273 (% Water Drained)	>90	N/A	N/A	>90	>90
	Enhanced Drainage Efficiency ⁶	ASTM E 2273 1 ½ in. / 2 in. Water Head Flow Rate (lbs. /5 min.)	70.9 / 91.4	NA	N/A	46.65/ 60.85	55.5 / Not Tested
Durability	Trapezoidal Tearing Strength	ASTM D 4533 (or ASTM D 1117) (lbs., MD/TD)	25/41	8/6	12/10	7/9	6/9
	Tensile Strength	ASTM D 882 (lbs/in., MD/TD)	56/30	30/30	38/35	30/30	33/41
	U.V. Stability	Months	6	4	9	6	9
Breathability	Water Vapor Permeance	ASTM E 96 Desiccant Method (perms)	16	56	23	36	30*

¹Source: GreenGuard® RainDrop® 3D Building Wrap Data Sheet; December, 2011

²Source: Dupont™ Tyvek®, HomeWrap® Physical Properties Data Sheet. 1/08 Downloaded on 1/7/14

³Source: Dupont™ Tyvek®, CommercialWrap® Physical Properties Data Sheet. Downloaded on 7/27/12

⁴Source: Dupont™ Tyvek®, DrainWrap® Physical Properties Data Sheet. Downloaded on 7/27/12

⁵Source: Dupont™ Tyvek®, CommercialWrap® D Physical Properties Data Sheet. Downloaded on 4/30/13

⁶Source: Independent test lab data using ASTM E 2273 with an increased rate of water sprayed into the slot fault at the top of the wall system. ASTM E 2273 only requires a water spray at a flow rate of 03.234 pounds per minute or 17.55 lbs. in 75 minutes.

* NOTE: This reported perm value is from ASTM E96-05, Method B, not the "Desiccant Method".

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