



WMP-VR-R PLUS
POLYPROPYLENE / SCRIM / POLYESTER

Meets ASTM C1136, Type II, IV

FACING COMPOSITION	DESCRIPTION	VALUES (ENGLISH)	VALUES (METRIC)
White Film	Polypropylene	0.0015 inch	38.1 micron
Adhesive	Flame Resistant		
Reinforcing	Tri-directional Fiberglass	4 / inch (MD) 4 / inch (XD)	16 / 100 mm (MD) 16 / 100 mm (XD)
Film	Metallized Polyester	0.0005 inch	12.7 micron

PHYSICAL PROPERTIES	TEST METHOD	VALUES (ENGLISH)	VALUES (METRIC)
Basis Weight	Scale	14 lbs / 1000 ft ²	68 g / m ²
Permeance (WVTR)	ASTM E96 Procedure A	0.02 perm (grains/hr ft ² in Hg)	1.15 ng / N's
Bursting Strength	ASTM D774	100 psi	7.0 kg / cm ²
Tensile Strength	ASTM C1136	35 lbs/inch width (MD) 35 lbs/inch width (XD)	6.1 kN / m (MD) 6.1 kN / m (XD)
Caliper / Thickness	Micrometer	0.007 inch	178 micron
Accelerated Aging	30 Days @ 95% RH, 120°F (49°C)	No Corrosion No Delamination	No Corrosion No Delamination
Low Temperature Resistance	ASTM D1790 -40°F (-40°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
High Temperature Resistance	4 hours @ 240°F (116°C)	Remains Flexible No Delamination	Remains Flexible No Delamination
Water Immersion	24 hours @ 73°F (23°C)	No Delamination	No Delamination
Mold Resistance	ASTM C665 / C1338	No Growth	No Growth
Dimensional Stability	ASTM D1204	0.25%	0.25%
Light Reflectance	ASTM C523	85%	85%

FIRE TESTING	ASTM E84 / UL 723		CAN/ULC-S102M		 
	Polypropylene Side	Polyester Side	Polypropylene Side	Polyester Side	
Flame Spread	10	10	10	10	
Smoke Developed	35	40	50	40	

Physical Properties based upon statistical averages, Weight / Thickness +/- 10%

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INNOVATIONS FOR LIVING®

OptiLiner™ Banded Liner system

ROOF FACING

Type I070 Vapor Retarder Fabric Product Data Sheet

Description

Type I070 Vapor Retarder Fabric is a premium, low permeance vapor retarder used as the liner in the OptiLiner™ insulation system.

FABRIC SPECIFICATIONS

COLOR	White/grey, other colors available
WEIGHT	4.4 oz/yd ² (149 g/m ²)
THICKNESS	Nominal 9 mils (0.22 mm) ASTM D1777

PERFORMANCE

CLASSIFICATION	Type I – VI*		ASTM C1136
TENSILE STRENGTH (STRIP)	Warp 100 lb 445 N	Weft 91 lb 404 N	ASTM D5034
GRAB TENSILE	Warp 136 lb 605 N	Weft 129 lb 574 N	ASTM D5034-95
TEAR STRENGTH (TONGUE)	Warp 50 lb 222 N	Weft 50 lb 222 N	ASTM D2261
BURST STRENGTH (MULLEN)	245 psi 17940 Pa		ASTM D3786
ELEVATED TEMPERATURE AND HUMIDITY RESISTANCE	0.02 perms no delamination		ASTM C1258
DIMENSIONAL STABILITY	Warp -1.0%	Weft -2.0%	ASTM D1204
THERMAL STABILITY	20°F No cracks or delamination	150°F No cracks or delamination	ASTM C1263
FUNGI RESISTANCE	No growth. (ATCC #'s 9642, 6205, 11797, 11730 and 9643)		ASTM C1336
MOISTURE VAPOR TRANSMISSION RATE	0.02 perms		ASTM E96 Method A
SURFACE BURNING CHARACTERISTICS	Flame Spread: 0 Smoke Developed: 30 (white side exposed)		UL723 (ASTM E84)
UV WEATHERING	UV stabilizers added for extra protection		
Air Permeance for Building Materials	<0.004 CFM/ft ²		ASTM D2178-3

*Exception for dimensional stability (value is <2.0%).



INNOVATIONS FOR LIVING®

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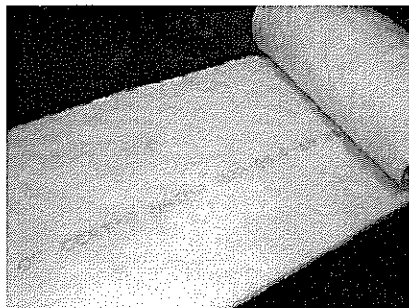
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EcoTouch® Insulation with PureFiber® Technology for Certified R Metal Building

Product Data Sheet

ROOF/WALL INSULATION



- R-10, 3.4"
- R-11, 3.7"
- R-13, 4.3"
- R-16, 5.3"
- R-19, 6.3"
- R-25, 8.0"
- R-30, 9.25"

Description

Owens Corning EcoTouch® Insulation with PureFiber® Technology for Certified R Metal Building is a light density fibrous glass blanket designed to be laminated with a variety of appropriate facings. Certified R is available in standard R-values of 10, 11, 13, 16, 19, 25 and 30. Standard roll widths are 36", 48", 60" and 72". Selected Made-to-Order widths are also available.

Key Features

- EcoTouch® insulation is the only fiberglass insulation product listed in the USDA BioPreferredSM Catalog.
- Formaldehyde-free².
- Made with 99% natural³ materials—not acrylic.
- Made in the U.S.A.¹

1. Meets requirements of the Buy American Act.
 2. Applies to the insulation component only.
 3. Unfaced insulation made with a minimum of 99% by weight natural materials consisting of minerals and plant-based compounds.

Typical Physical Properties

Property	Test Method	Result
Thermal Resistance	ASTM C177/C818	(see "Description")
Surface Burning	UL 723/ASTM E84	Flame spread index < 25 Smoke developed index < 50
Combustion Characteristics	ASTM E136	Non-combustible
Water Vapor Sorption	ASTM C1104	≤ 0.2% by volume
Fungi Resistance	ASTM C1338	Passes - no growth exhibited
Corrosiveness	ASTM C665	Passes
Odor Emission	ASTM C1304	Passes - no odor detected

1. The surface burning characteristics of these products have been determined in accordance with UL 723. The standard should be used to measure and describe the properties of materials, products or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use. Values are reported to the nearest 5 rating.

- Uses a minimum of 65% recycled content—41% being post-consumer.
- GREENGUARD Children & Schools CertifiedSM.
- Easy to handle.
- Excellent recovery provides outstanding thermal and acoustical performance.

Product Applications

EcoTouch® Insulation with PureFiber® Technology for Certified R Metal Building is used as part of the insulation system in the roofs and side walls of metal buildings. It is designed to be laminated with a variety of facings to provide attractive interior finishes, abuse resistance, and assistance in control of moisture.

Owens Corning EcoTouch® Insulation with PureFiber® Technology for Certified R Metal Building are fabricated and distributed by a nation wide network of independent laminators assuring prompt service and delivery. Contact your Owens Corning Sales Representative for the names of insulation laminators servicing your area.

Installation

Several methods are used to insulate metal buildings. The usual method is to apply the insulation over the structural members (purlins and girts) and inside the exterior panels. This method generally accommodates single layer installations. Methods are also available to apply insulation between purlins so as to accommodate greater insulation thicknesses and better thermal performance.

Technical Information

Owens Corning EcoTouch® Insulation with PureFiber® Technology for Certified R Metal Building is regularly tested to ensure compliance to the NAIMA 202-96 (Rev. 2000) Standard. Sampling and testing is performed by the National Association of Home Builders Research Center (NAHB-RC). The product is labeled on the top surface of each roll with the nominal R-value and the "NAIMA 202-96" (Rev. 2000) to indicate compliance. The NAIMA 202-96 (Rev. 2000) standard specifies thermal