



# ALPHA

high performance fabrics & composites

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## VR-R PLUS

<b>DESCRIPTION</b>	Reinforced Polypropylene Film – Metalized Polyester Film Laminate
<b>APPLICATIONS</b>	Metal Building Insulation Facing
<b>CERTIFICATIONS</b>	Meets all criteria for ASTM C1136 Types II, IV UL 723/ASTM E84, ULC-S102M fire testing

## COMPOSITION

<u>COMPONENT</u>	<u>DESCRIPTION</u>	<u>VALUES*</u>	
		<u>English</u>	<u>Metric</u>
White Film	Polypropylene	0.0011 inch	28.0 micron
Adhesive	Flame Resistant		
Reinforcement	Tri-directional Fiberglass	4/inch (MD)	20/100 mm (MD)
		4/inch (CD)	8/100 mm (MD)
Film	Polyester	0.0005 inch	12.7 micron

## TYPICAL PHYSICAL PROPERTIES

<u>CHARACTERISTIC</u>	<u>METHOD</u>	<u>VALUES*</u>	
		<u>ENGLISH</u>	<u>METRIC</u>
BASIS WEIGHT	Scale	13.2 lbs/1000 SF	64.1 g/SM
THICKNESS	ASTM-D-1777	0.007"	178 microns
PERMEABILITY (WVTR)	ASTM-E-96	0.02 Perms	1.15 ng/N's
BURST STRENGTH	ASTM-D-774	100 psi	7.0 kg/cm <sup>2</sup>
PUNCTURE RESISTANCE	ASTM-C-1136	300 units (79 in-lbs)	9.0 Joules
TENSILE STRENGTH	ASTM-C-1136	30 lbs/inch MD	5.25 kN/m
		30 lbs/inch CD	5.25 kN/m
ACCELERATED AGING	30 days @ 95% RH, 120 °F (49°C)	No Corrosion	No Corrosion
		No Delamination	No Delamination
TEMPERATURE RESISTANCE		-40 °F to 220 °F	-40 °C to 104 °C
WATER IMMERSION	24 hours @ 73°F (23°C)	No Delamination	No Delamination
MOLD RESISTANCE	ASTM-C-665	No Growth	No Growth
LIGHT REFLECTIVITY	ASTM-C-523	85%	85%

Physical properties are based upon nominal values. Weight / Thickness +/- 10%

## FIRE TESTING

### UL723/ASTM E84/CAN ULC-S102M

	<u>Composite</u>
FLAME SPREAD	25
SMOKE DEVELOPED	50

**DATA SHEET # 13662 REV. I DATE: 12/10/14 \*All values are nominal unless otherwise specified.**

Note: Alpha's metal building insulation facings are produced with plastic films containing ultraviolet (UV) inhibitors, however, intense exposure to UV sources such as direct or indirect sunlight and/or high-output UV lighting is not recommended as these will degrade the plastic film facing.