

Metallized Laminates for Vacuum Insulation Panels

Description:

A laminate of three metallized polyester films with an LLDPE heat seal layer, and matte-silver, halogen free flame retardant (FR) coating. The laminate delivers superior barrier qualities for very long term vacuum insulation panel applications that require MVTR in the order of 0.01g/m² day (38°C and 100% RH), and an OTR below detection level. This product was specially developed for the construction market to deliver exceptional thermal durability, extended longevity and meet flame retardancy requirements at B2 levels in DIN 4102 testing.

Item number: V08621F

Product Specifications (typical values):

PROPERTY	TEST METHOD	V08621F	
Thickness	—	101 4.0	[micron] [mil]
Area Yield	—	8.60 6060	[m ² /kg] [in ² /lb]
Tensile Strength	ASTM D-882	MD 80 11.7	TD 70 [Mpa] 10.2 [Kpsi]
Heat Seal Strength Heat Seal Break Point	165°C, 4kg/cm ² , 2 sec	>3.5 >8880	[N/mm] [g/in]
Elongation	ASTM D-882	MD 100	TD 80 [%]
Puncture Resistance	FTMS 101C 2065	120 [N]	37.9 [lb]
Puncture Resistance (Japanese sting strength)	JIS Z1707	15 [N]	4.7 [lb]
GTR (Gas Transmission Rate) @ 22°C/50% RH	Internal test method*	< 3.0	[cc (STP)/ m ² /year]
MVTR	ASTM F-1249-90 38°C 100% RH 100°F 100% RH	<0.01 <0.00065	[gr/m ² day] [gr/100in ² day]

* GTR is the rate of gas permeation into a panel, while OTR is oxygen permeation rate through a flat film. As air contains mainly nitrogen and the application is VIP, gas permeation is a more relevant value for the film performance. Detailed test descriptions are documented in "Hanita Testing Methodology for VIP", downloadable at:

<http://www.hanitacoatings.com/energy/vip-zone/resources/technical-downloads>

Subject to testing and sales conditions outlined in main data sheet

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VACUUM INSULATION PANEL

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