

INDUSTRIAL FILMS

Metallized Laminates for Vacuum Insulation Panels

Item number: **V10130B**



Description:

A laminate consisting of three metallized polyester films, an LLDPE heat seal layer, and a PA (Nylon) protective layer. This laminate provides superior barrier qualities for very long term vacuum insulation panel applications requiring an MVTR in the order of 0.015g/m² day (38°C and 90% RH), and an OTR below detection level. This product is engineered to enhance the thermal durability of the VIP envelope, and improve mechanical properties through the additional PA layer.

Product Specifications:

PROPERTY	TEST METHOD	V10130B	
Thickness	-	113 4.4	[micron] [mil]
Area Yield	-	7.7 5460	[m ² /kg] [in ² /lb]
Tensile Strength	ASTM D-882	<u>MD</u> 109 15.9	<u>TD</u> 109 15.9 [Mpa] [Kpsi]
Heat Seal Strength Heat Seal Break Point	165°C, 4 kg/cm ² , 2 sec	>3.0 >7614	[N/mm] [g/in]
Elongation	ASTM D-882	<u>MD</u> 110	<u>TD</u> 120 [%]
Puncture Resistance	FTMS 101C 2065	150 [N]	47.4 [lb]
Puncture Resistance (Japanese Sting Strength)	JIS Z1707	24 [N]	7.6 [lb]
MVTR	ASTM F-1249-90 38°C 90% RH 100°F 90% RH	<0.015 <0.000975	[gr/m ² day] [gr/100in ² day]
GTR* (Gas Transmission Rate) @ 22°C 50% RH	Hanita's internal test method*	<9	[cc (STP)/ m ² /year]



appliances



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* 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 description can be found under "Hanita testing methodology for VIP" on our site.

Please note that the lifetime of the products will differ based on the type of application. For a specific indication of lifetime properties of the products related to a specific application, please contact the Avery Dennison Hanita technical support team tech.industrial@eu.averydennison.com. The lifetime indication given by the Avery Dennison Hanita technical support team is based on a calculation believed to be reliable but shall not constitute a guarantee or warranty.

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