

INDUSTRIAL FILMS *Preliminary Information**

Metallized Laminates for Vacuum Insulation Panels

Item number: **V135HB3**



Description:

A laminate comprising two metallized PET films, a Proprietary Surface Treatment (PST) and two coex films of LDPE/ LLDPE as sealing layer, one on each side of the laminate. This laminate demonstrates foil-like barrier qualities, with extremely low GTR, low MVTR and high mechanical stability compared to other commercially available laminates¹.

It is designed for very long term vacuum insulation panel applications requiring extremely high levels of barrier, and an additional sealing layer.

Product Specifications:*Product is under development and values are based on preliminary results.

PROPERTY	TEST METHOD	V135HB3	
Thickness	—	140 5.5	[micron] [mil]
Area Yield	—	6.65 4685	[m ² /kg] [in ² /lb]
Heat Seal Strength Heat Seal Break Point	165°C, 4kg/cm ² , 2 sec	>3.0 >7614	[N/mm] [g/in]
Puncture Resistance	FTMS 101C 2065	150 [N]	47.4 [lb]
Puncture Resistance (Japanese Sting Strength)	JIS Z1707	20 [N]	6.3 [lb]
MVTR	ASTM F-1249-90 38°C 90% RH 100°F 90% RH	<0.035 <0.002258	[gr/m ² day] [gr/100in ² day]
GTR* (Gas Transmission Rate) @ 22°C/50% RH	Hanita's internal test method*	<3.0	[cc (STP)/ m ² year]



appliances



construction



thermal packaging



specialty

¹ For a sample comparison report of Hanita laminates with other commercially available laminates, please see "Comparison of Barrier of VIP Laminates - New PST Technology" under Technical Downloads on our site. More data can be provided by our technical support team tech.industrial@eu.averydennison.com. Please note that this footnote is applicable to all references to terms/durations mentioned in this data sheet.

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

Please note that the lifetime of the products will differ based on the type of application. For an 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 life time 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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Avery Dennison Israel Ltd
Kibbutz Hanita, 2288500 Israel
T: +972 4 985 9919
E: hanita.coatings@eu.averydennison.com

