

# INDUSTRIAL FILMS *Preliminary Information\**

## Metallized Laminates for Vacuum Insulation Panels

Item number: **V086HB3**



### Description:

A laminate comprising three metallized PET films with a Proprietary Surface Treatment (PST) and a coex of LDPE/LLDPE as sealing layer. This laminate demonstrates foil-like barrier qualities, with extremely low GTR and extremely low MVTR compared to other commercially available laminates<sup>1</sup>. It is designed for very long term vacuum insulation panel applications requiring extremely high levels of barrier to air and moisture.

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

PROPERTY	TEST METHOD	V086HB3	
Thickness	—	<b>104</b> <b>4.1</b>	[micron] [mil]
Area Yield	—	<b>8.23</b> <b>5798</b>	[m <sup>2</sup> /kg] [in <sup>2</sup> /lb]
Heat Seal Strength Heat Seal Break Point	165°C, 4kg/cm <sup>2</sup> , 2 sec	<b>&gt;3.5</b> <b>&gt;8880</b>	[N/mm] [g/in]
Puncture Resistance	FTMS 101C 2065	<b>160 [N]</b>	<b>50.5 [lb]</b>
Puncture Resistance (Japanese Sting Strength)	JIS Z1707	<b>20 [N]</b>	<b>6.3 [lb]</b>
MVTR	ASTM F-1249-90 38°C 90% RH 100°F 90% RH	<b>&lt;0.015</b> <b>&lt;0.000975</b>	[gr/m <sup>2</sup> day] [gr/100in <sup>2</sup> day]
GTR* (Gas Transmission Rate) @ 22°C/50% RH	Hanita's internal test method*	<b>&lt;3.0</b>	[cc (STP)/ m <sup>2</sup> /year]



construction



thermal packaging



specialty

<sup>1</sup> 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](mailto: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" on our site.

*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](mailto: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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