

**PHOTOVOLTAIC**

**BACKSHEET FOR PV MODULE PROTECTION**

**Laminate based on three layers of high performance polyester film**

dyMat® APYE is a laminate based on three layers, PET//Aluminium//PET and an EVA primer\* on the cell side. Thanks to the excellent resistance to atmospheric agents of high grade PET, the outstanding barrier provided by Aluminium and the high voltage insulation of the laminate structure, dyMat® APYE is properly indicated for the back protection of solar modules in highly aggressive environments, or as back protection for solar systems with high sensitivity to moisture (i.e. a-Si and CIGS thin film solar cells). The long term resistance of the laminate is granted by specific adhesives at improved hydrolysis resistance.

	<b>Unit</b>	<b>Method</b>	<b>Typical values</b>
PET thickness (inner layer)	micron	caliper	190
Aluminium thickness	micron	caliper	9
PET thickness (air side)	micron	caliper	50
EVA primer thickness	micron	caliper	100
Laminate thickness	micron	caliper	370 +/- 5%
Grammage	gr/sqm	10x10 weight	510 +/- 5%
Tensile strength (MD)	N/10 mm	ASTM D-882	310
Tensile strength (TD)	N/10 mm	ASTM D-882	310
Elongation at break (MD)	%	ASTM D-882	110
Elongation at break (TD)	%	ASTM D-882	100
Heat shrinkage (MD) 150°C x 30'	%	ASTM D-1204	< 1,0
Heat shrinkage (TD) 150°C x 30'	%	ASTM D-1204	< 0,8
Layer peel strength	N/10 mm	T - peel (peak value)	> 5
EVA adhesion ** (primer coated side vs EVA)	N/10 mm	internal	> 40,0
Moisture barrier *** (at 38° 90% RH)	gr/sqm x day	ASTM F-1249	0.005
Breakdown voltage	kV	ASTM D-149	> 20
Partial discharge test	VDC	IEC 60664-1	> 1000

**Legend**

\* Primer colours available: W (white), BK (black) and BL (blue). Other colours available upon request  
 \*\*EVA Corona treated available upon request (adhesion typically > 80N/10mm)  
 \*\*\* Instrument sensitivity 10<sup>-3</sup>

**Notes**

Other ticknesses available on request (Aluminium layer 20µ and 50µ)  
 Cut sheets (sizes, drills etc.) according to customer's specifications

**Shelf life: 2 years**

All values stated are to be considered as Typical values.  
 The above information is liable to change due to innovation and improvement in the manufacturing process.  
 We assume no liability for any infringement of any patent, copyright or design on the part of the customer while exploiting the film for different end-uses.

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dyMat® is TÜV certified and UL recognized   UL file n° E313506 

dyMat® is a Coveme registered trade mark

Coveme spa is UNI EN ISO 9001-2008 certified  