

PHOTOVOLTAIC

3000 hours DHT and 80 hours PCT*

BACKSHEET FOR PV MODULE PROTECTION

Laminate based on two layers of high performance polyester film

This innovative backsheet has been developed for applications where a superior performance under extreme aging conditions is required (over 3000 hours DHT*). Thanks to its excellent resistance to the atmospheric agents, its strong barrier to oxygen and humidity, the high voltage insulation and the long term resistance to the hydrolysis of adhesives, dyMat® PYE 3000 is properly indicated for solar cell module encapsulation.

The cell side is treated with a special thick primer which provides extremely high bonding to EVA. This primer can be supplied in different colours** and in transparent finishing. The laminate thickness has been designed to provide the best combination of properties in terms of electrical insulation and weatherability.

	Unit	Method	Typical values
PET thickness, air side, white	micron	caliper	50
PET thickness, inner layer, hazy	micron	caliper	125
Primer thickness	micron	caliper	100
Laminate thickness	micron	caliper	295 +/- 5%
Unit weight	gr/sqm	10x10 weight	360 +/- 5%
Tensile strength (MD)	N/10 mm	ASTM D-882	290
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	< 1,5
Heat shrinkage (TD) 150°C x 30'	%	ASTM D-1204	< 0,6
Layer peel strength	N/10 mm	T - peel (peak value)	> 5,0
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	2,40
Breakdown voltage	kV	ASTM D-149	> 20
Partial discharge test	VDC	IEC 60664-1	> 1000

Legend

* tests realized in laminated modules (glass//Encapsulating EVA//PYE3000), DHT (Damp Heat Test) at 85°C 85% RH (IEC 61215 procedure 10.13) and PCT (Pressure Cooker Test) at 121°C 100% RH (internal procedure):

According to our estimates 80h of PCT equal to approx. 3000h DHT, based on elongation at break measurement criteria.

** 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)

Notes

Other thicknesses on request

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.

Date of revision: April 2010

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

