

PHOTOVOLTAIC

Extra moisture barrier

BACKSHEET FOR PV MODULE PROTECTION

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 cell side is treated with a special thick primer which provides extremely high bonding to encapsulants. This primer can be supplied in different colours and in transparent finishing. The long term resistance of the laminate is granted by specific adhesives at improved hydrolysis resistance.

| | Unit | Method | Typical values |
|--|--------------|-----------------------|----------------|
| PET thickness air side, white | micron | caliper | 50 |
| Aluminium thickness | micron | caliper | 9 |
| PET thickness inner layer | micron | caliper | 190 |
| Primer thickness | micron | caliper | 100 |
| Laminate thickness | micron | caliper | 370 +/- 5% |
| Unit weight | 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), B (black) and R (regal blue). Other colours available upon request

**EVA Corona treated available upon request (adhesion typically > 80N/10mm)

*** Instrument sensitivity 10⁻³

Notes

Other thicknesses 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.

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

Coveme is UNI EN ISO 9001-2008

and ISO 14001 certified

The polyester film employed in the manufacturing
of dyMat APYE® is completely recycable

dyMat APYE® is a Coveme registered trademark



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