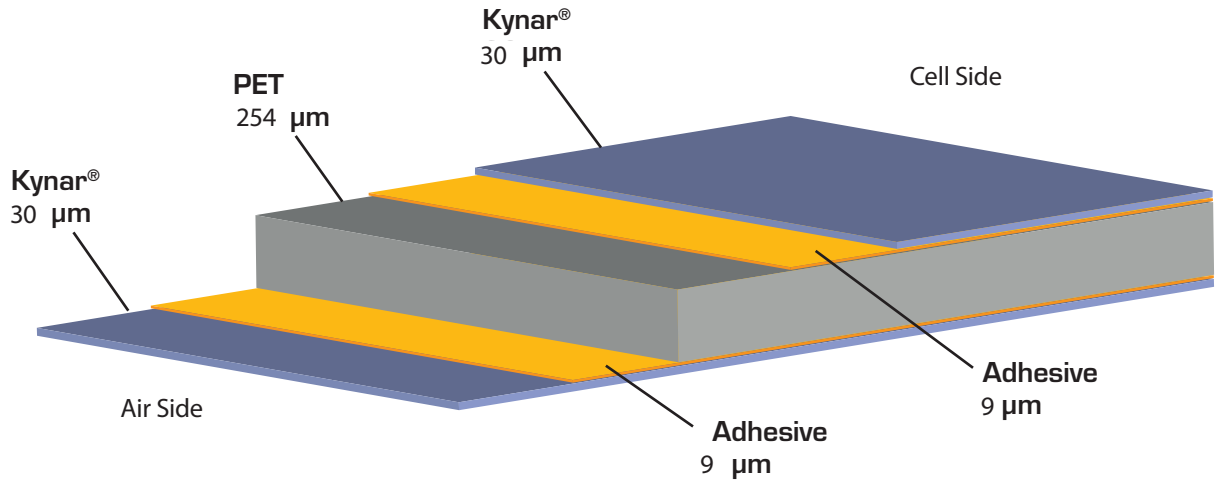
Polymeric Solutions for the Photovoltaic Industry

FLEXcon multiGUARD®

FLEXcon multiGUARD® KPK 12 Backsheet Series

FLEXcon multiGUARD® KPK W12



FLEXcon's multiGUARD® brand, a range of backsheets for photovoltaic modules, stands for multiple guarding properties – engineered to protect against moisture and humidity and provide superior partial discharge and high voltage insulation for proper functioning of the module. FLEXcon's line of backsheet products are designed to meet required standards and regulations.

FLEXcon multiGUARD® KPK W12 is a multi-layered white backsheet laminate – Kynar®*/ PET / Kynar – that exceeds 1,000 volts in the IEC partial discharge test as measured by TÜV and is UL recognized according to the QIHE2 standard**. KPK W12 has excellent laminate bond strength and is designed to maintain a superior bond to most standard fast- and ultra-fast cure encapsulants.

FLEXcon is an innovator in wide-web, roll-to-roll coating, laminating and finishing of polymeric materials with expertise in bonding, barrier, electronics and graphics. We are an ISO 9001:2008 and NEN-EN-ISO 9001:2008 certified manufacturer. Our manufacturing, distribution and warehousing facilities in Europe and North America allow us to offer an uninterrupted supply of backsheet protective laminates and complimentary pressure-sensitive products of all types.

*Kynar® is a registered trademark of Arkema Inc.
**FLEXcon UL file number E318502.

Kynar® Film

Physical Properties	Value	Test Method
Damp Heat Exposure	> 2000hrs	IEC 61215 (85°C/85% RH)
Maximum System Voltage	> 1000 VDC	IEC 61730-2; IEC 60664-1
Breakdown Voltage	27.16 kV	IEC 60243-1
Bond Strength (Internal)	> 5 N/cm	ASTM D903; D1876
Bond Strength to Encapsulant[1]	> 40 N/cm	ASTM D903
MVTR	1.7 g/m^2/day	ASTM F1249 (38°C/90% RH)
Thickness (Total Laminate)	333µm ± 10%	ASTM D1593
Specific Gravity	1.47	ASTM D1505
Tensile Strength	MD 154 N/mm^2 TD 146 N/mm^2	ASTM D882
Tensile Elongation	MD 307% TD 213%	ASTM D882
Tensile Modulus	MD 1039 N/mm^2 TD 1144 N/mm^2	ASTM D882
Shrinkage	MD < 1.5% TD < 1.0%	ASTM D1204 (150°C/30min)

We strongly recommend thoroughly testing the backsheet under the actual application conditions, including adhesion of the junction box to the backsheet.

[1] Results may vary based on encapsulant

TÜVRheinland®
Precisely Right.

061913

FLEXcon
1 FLEXcon Industrial Park
Spencer, MA
01562-2642, USA
Phone 508 885 8200
Fax 508 885 8400

FLEXcon Europe Ltd.
Flevolaan 3, 1382 JX
Weesp, The Netherlands
Phone +31(0) 294 491800
Fax +31(0) 294 430887

FLEXcon Europe Ltd.
Whitworth Rd
Southfield Industrial Estate
Glenrothes, Fife KY6 2TF,
Scotland - UK
Phone +44(0) 1592 663200
Fax +44(0) 1592 663201

FLEXCON