

Flexible Insulation

Polyester Film

GENERAL INFORMATION:

Polyester film is translucent (milky), flexible, has high tensile strength, tear resistance and shear strength. It is insensitive to oils, greases and solvents, does not contain plasticisers and in normal conditions is unaffected by ageing. In addition it has high dielectric properties.

THERMAL PROPERTIES:

Polyester film retains all its outstanding properties, namely mechanical strength, flexibility dielectric over a temperature range from -60°C to +150°C.

APPLICATIONS:

Polyester film is used in a wide range of industrial applications, such as;

- electrical insulation of motors
- generators, transformers
- bobbins and cables
- thermal and physical barriers
- release agent
- membrane switch substrate
- substrate for laminations, thus obtaining composite materials

PHYSICAL & ELECTRICAL PROPERTIES

Property	Typical Value	Property	Typical Value
Mechanical (Typical)			
Ultimate Tensile Strength	1750 kg/cm	Tear Strength - Propagating (Elmendorf)	750 g/mm
Stress to produce 3°, 0 elongation	950 cm/kg ²	Tear Strength -Initial (Graves)	300 kg/cm
Stress to produce 5% elongation	1050 cm/kg ²	Bursting Strength - (Mullen)	4.6 kg/cm
Ultimate Elongation	150%	Density	1.395
Tensile Modulus	38500 cm/kg ²	Coefficient of friction(kinetic) (film to film)	0.45
Impact Strength	240kg/cm/mm	Refractive Index (Abbé)	1.64 nD 25
Folding Endurance (MIT)	14 000 cycles		
Electrical (Typical)			
Dielectric Strength 25°C	280 KV/mm	Dissipation Factor	0.0025
Dielectric Strength 150°C	200 KV/mm	Volume Resistivity	1x10 ¹⁶ Ohm
Dielectric Constant	3.40	Surface Resistivity	1x10 ¹² Ohm