



**PLASTIC SHIM**

**POLYESTER SPECIFICATION**

The Polyester films (#222) used in the manufacture of parts produced by Evans Graphics are made of Polyethylene Terephthalate (PET). The manufacturing combines a short fibre polyester mat laminated to a polyester film. The fibres of these films are biaxially orientated and heatset.

The characteristics of the material make it particularly suitable for lamination and printing. This lends itself to the colour coding of the various thicknesses commonly used by our customers in various applications. The printing method used for the colouring of the Polyester material is a flexographic process.

**KEY BENEFITS:**

- High tensile strength and tear resistance
- Impact and abrasion resistant
- Dimensionally stable
- Resistant to elevated and reduced temperatures
- Impermeable to aromas, gases and water vapour
- Resistant to all commonly used organic solvents, oils and fats and to many inorganic substances
- Resistant to fungal and bacterial attack
- Excellent electrical insulation properties
- Good UV resistance

**TYPICAL PROPERTIES:**

PROPERTIES	VALUE	SPECIFICATION
<i><b>Physical</b></i>		
Penetration resistance	Good	
Moisture absorption	0.5%	DIN 53472 ASTM D 570 Test: Immersed in water 4 days at 23 °C





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(continued)

PROPERTIES	VALUE	SPECIFICATION
<b><i>Dimensional Stability</i></b> Shrinkage	2%	DIN 40634 or VDE 0345 Test condition: 150°C – 15 min
Coefficient of moisture expansion	$0.7 \cdot 10^{-5} (\% \text{ r.h})^{-1}$	Test condition: 40 – 80% r.h
<b><i>Thermal</i></b> Melting point	260°C	Differential thermal analysis – 3 K/min
Flammability	No flammable gases appear up to 400°C	DIN 40634 or VDE 0345
Thermal conductivity	0.13 units W/(m * K)	VDE 0304 part 1
Insulation class in electrical engineering	B	DIN 57530 or VDE 0530 main list
Low temperature resistance	-196°C	DIN 53372 (tested to -196°C)
Operating temperatures Continuous air High Continuous air Low	121°C -40°C	

*The information provided here is consistent with the current state of knowledge and is intended to provide general information.*