

## Multiplast PBT + 30% glass

Multiplast PBT with 30% glass is a glass reinforced polyester (Polybutylene Terephthalate) which has:

- Very high strength
- High Thermal dimensional stability
- Minimal thermal expansion

Properties	Units		
Modulus of elasticity (tensile test)	MPa	3400	
Tensile strength	MPa	46	
Tensile strength at yield	MPa	46	
Elongation at yield	%	5	
Elongation at break	%	6	
Modulus of elasticity (flexural test)	MPa	3400	
Flexural strength	MPa	78	
Compression modulus	MPa	2800	
Compressive strength (1% / 2%)	MPa	20 / 38	
Impact strength (Charpy)	kJ / m <sup>2</sup>	37	
Notched impact strength (Charpy)	kJ / m <sup>2</sup>	-	
Ball indentation hardness	MPa	190	
Glass transition temperature	°C	-	
Melting temperature	°C	224	
Service temperature	short term	°C	200
	long term	°C	110
Thermal expansion	23 °C – 60 °C	10 <sup>-5</sup> K <sup>-1</sup>	8
	23 °C – 100 °C	10 <sup>-5</sup> K <sup>-1</sup>	10
Specific heat	J / (g x K)		1,2
Thermal conductivity	W /m K		0,33

Properties	Units	
Specific surface resistance	$\Omega$	$10^{14}$
Specific volume resistance	$\Omega \times \text{cm}$	-
Dielectric strength	kV / mm	-
Resistance to tracking (CTI)	V	-
Water absorption 24 h / 96 h (@ 23 °C)	%	0,02 / 0,04
Resistance to hot water / bases	-	Poor resistance
Resistance to weathering	-	Poor resistance
Flammability	UL94	HB
Density	g/cm <sup>3</sup>	1,46
Colour	-	Grey-white

#### Availability:

Sheet:	Size:	500 x 3000 mm (for thickness 16, 30 and 50 mm) 300 x 3000 mm (for thickness 80)
	Thickness	16, 30, 50 and 80 mm
Rod:	Length:	3000 mm (shorter lengths are possible)
	Diameter	Ø20 – Ø100 mm