PTFE-GF25

Product Data Sheet

PTFE GF25

Polytetrafluoroethylene (PTFE + 25% glass-fibre)

Plastem engineering plastics

PTFE, reinforced with glass-fibre, provides greater resistant to wear, more resistant to creep and more suitable for higher surface pressure applications.

Properties	Test method	Unit	Value
Mechanical			
Tensile strength	D 4894	MPa	≥ 13
Elongation at break	D 4894	%	≥ 180
Compressive strength (1% strain)	D 695	MPa	8
Deformation under load	D 621	%	9 - 11
Permanent deformation	D 621	%	5 - 7
Shore hardness	D 2240	MPa	≥ 60
Ball indentation hardness	D 785	MPa	≥ 25
Thermal			
Melting temperature	–	°C	-
Thermal conductivity	C 177	W / (m * K)	0,41
Coef. of linear thermal expansion	ASTM D696	10^{-5} (mm/mm) / °C	7.7 - 11.2
Long term service temperature	–	°C	-100 → 250
Short term service temperature	–	°C	-200 → 260
Heat deflection temperature	DIN 75 HDT/A	°C	-
Flammability	UL 94	–	V0
Flammability (oxygen index)	–	%	-
Electrical			
Dielectric constant at 1MHz	D150	10^{6} Hz	-
Dissipation factor at 1MHz	D150	10^{6} Hz	-
Volume resistivity	D257	Ω * cm	≥ 10^{15}
Surface resistivity	D257	Ω	≥ 10^{14}
Dielectric strength	D149	kV / mm	-
Additional Data			
Density	D 792	g / cm³	2,20 - 2,27
Water absorption (saturation)	D 570	%	0,03
Humidity absorption (saturation)	D 570	%	0,03
Food compliance	EEC	–	-
Food compliance	FDA	–	Yes
Coefficient of Friction (dynamic → static)	D 1894	–	0,15 - 0,20
Shapes	Rod (Ø25 - 60 mm)		
Colour	Natural		

- **Glass filled PTFE** offers improved dimensional and deformation stability compared to standard PTFE

The conditioned material values stated are average test results. The data provides information about our products and offers a guide for material selection. This does not provide an assurance of specific properties or the products suitability for a particular application.

It solely remains the customers responsibility to test and assess the suitability and compatibility of Plastem's products for it's intended applications, processes and uses. The customer undertakes all liability in respect of the application, processing or use of the aforementioned information or product.

* *Long term service temperature are based on the thermal ageing of the polymer by oxidation, resulting in a decrease in mechanical capabilities*

* *Short term service temperature only applies to very low mechanical stress for a very limited time only.*

Properties can vary depending on the raw shape selected and the degree of crystallisation. The actual property values of a finished product may differ from the indicated values stated.