

Compounded PTFE Technical Data Sheet

PROPERTY	STANDARD	25% Glass Fiber filled	25% Carbon filled	60% Bronze filled	15% Graphite filled
Density	ASTM D792	2.25 g/cm ³	2.08 g/cm ³	3.85 g/cm ³	2.10 g/cm ³
Water Absorption	ASTM D570	<0.02 %	<0.05 %	<0.03 %	<0.05 %
Tensile strength	ASTM D638	≥140 kg/cm ²	≥120 kg/cm ²	≥170 kg/cm ²	≥120 kg/cm ²
Elongation at break	ASTM D638	≥300 %	≥80 %	≥ 110 %	≥ 150 %
Impact strength, Izod, 23°C	ASTM D256	-	-	-	-
Hardness	ASTM 785	60 - 62 Shore D	60-63 Shore D	65 -70 Shore D	55 - 60 Shore D
Compressive strength at 1% def.	ASTM D695	80 - 90 kg/cm ²	55 - 65 kg/cm ²	110 - 120 kg/cm ²	50 - 60 kg/cm ²
Thermal conductivity	ASTM D2214	0.36 W/m. K	0.53 W/m. K	0.76 W/m. K	0.44 W/m. K
Coefficient of Thermal Expansion, 25 to 100 °C	ASTM E831	11.0 x 10 ⁻⁵ °C ⁻¹	12.5 x 10 ⁻⁵ °C ⁻¹	8.5 x 10 ⁻⁵ °C ⁻¹	12.5 x 10 ⁻⁵ °C ⁻¹
Volume resistivity, at 50% RH	ASTM D257	≥10 ¹⁵ Ohm cm	≥10 ⁴ Ohm cm	≥10 ⁷ Ohm cm	≥10 ¹¹ Ohm cm
Surface Resistivity	ASTM D257	≥10 ¹⁶ Ohm	≥10 ³ Ohm	≥10 ⁹ Ohm	≥10 ¹² Ohm
Dielectric strength	ASTM D149	≥ 35 KV/mm	-	-	-
Safe Operating temperatures	-	- 50 to 200°C (biological, pharma, food applications) - 50 to 260°C (Non-bio/food/ pharma applications)	- 50 to 260°C (Non-bio/food/ pharma applications)	- 50 to 260°C (Non-bio/food/ pharma applications)	- 50 to 260°C (Non-bio/food/ pharma applications)
Coefficient of friction, static	ASTM D3028	≤0.16	≤0.15	≤0.16	≤0.10
Coefficient of friction, dynamic	ASTM D3028	≤0.13	≤0.11	≤0.13	≤0.07
Moisture / solvent absorption	-	Negligible	Negligible	Negligible	Negligible
Weather resistance	-	Excellent	Moderate	Moderate	Moderate

Technical data of other compounded PTFE materials on request

Disclaimer:

- The values given in the data sheet are for reference only.
- Customers are advised to test the suitability of our materials for their application as these values may not directly hold good under all complex / multiple application conditions.
- Our company does not undertake any liability, direct or indirect, linked with the usage and performance of our materials under application conditions.