



10% Carbon PTFE Datasheet

Typical properties of 10% carbon-filled PTFE

Property	Method	Units	Specification
Specific gravity	ASTM D792	g/cm ³	2.140 - 2.170
Tensile strength	ASTM D4894	MPa	≥ 20
Elongation	ASTM D4894	%	≥ 200
Hardness	ASTM D2240	Shore D	≥ 62
Compression strength at 1% deformation		MPa	≥ 10
Deformation under load (140 Kg/cm ² for 24 h at 23° C)	ASTM D621	%	9 - 11
Permanent deformation (after 24 h relaxation at 23° C)	ASTM D621	%	3 - 5
Coefficient of linear thermal expansion (T = 25 - 100° C)		10 ⁻⁵ / °C	10.5 - 12.5
Coefficient of static friction			0.14 - 0.15
Coefficient of dynamic friction			0.10 - 0.11
Volume resistivity	ASTM D257	Ohm cm	10 ⁷
Aging and weatherability			Stable over 20 years of exposure

Radiation resistance (gamma rays)	low:	Electrical properties unchanged; mechanical properties decreased
Service temperature	C°	-200 / +260

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Vital Polymers, LLC • 3651 Wright Way Road • Dayton, OH 45424
Phone: (937) 235-6311 • Fax: (937) 235-9223 • www.vitalpolymers.com