

TECANYL ® MT - Stock Shapes (rods, plates, tubes)

Chemical Designation

PPE (Polyphenylene ether)

Colour

various opaque

Density

1.08 g/cm³

Main features

- autoclavable
- easily machinable to tight tolerance
- very good chemical resistance
- high toughness
- biocompatible
- hydrolysis and superheated steam resistant
- resistance against high energy radiation
- high dimensional stability

Target Industries

- medical technology
- pharmaceutical industry
- food engineering

Mechanical properties	condition	value	unit	test method	comment
Modulus of elasticity (tensile test)	@ 73 °F	471,000	psi	ASTM D 638	(1) Data obtained from public source
Tensile strength at yield	@ 73 °F	9,700	psi	ASTM D 638	1)
Tensile strength at break	@ 73 °F	9,800	psi	ASTM D 638	
Elongation at break (tensile test)	@ 73 °F	16.3	%	ASTM D 638	
Flexural strength	@ 73 °F	14,600	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	368,000	psi	ASTM D 790	
Impact strength (Izod)	@ 73 °F	2.6	ft-lbs/in	ASTM D 256	
Thermal properties	condition	value	unit	test method	comment
Deflection temperature	@264 psi	296	°F	ASTM D 648	(1) Data obtained from public source
Service temperature	Long Term	220	°F	-	1)
Thermal expansion (CLTE)	-40°F to 100°F	4.81*10 ⁻⁵	in/in/°F	ASTM E 831	
Thermal conductivity		168	°F	-	2)
Other properties	condition	value	unit	test method	comment
Moisture absorption	@ saturation, 73 °F	0.23	%	ASTM D 570	

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