

Torlon® 5030 PAI

30% Glass Fiber Reinforced

Torlon 5030 is a high modulus polyamide-imide containing 30% glass fibers well suited for electrical insulators and thermal isolators. It offers a 50% lower CLTE than non-reinforced Torlon 4203 but without the conductivity of carbon fibers. The strength of 5030 is unmatched and the modulus second only to Torlon7130. Torlon 5030 is ideal for:

- High temperature thermal/electrical insulators
- Test sockets for IC's
- Fasteners
- Activation balls and valve seats

Material Notes: *Torlon 5030 contains 30% glass fibers*

Physical Properties	Metric	English	Methods
Specific Gravity	1.60 g/cc	.058 lb/in ³	ASTM D792
Water Absorption	0.3%	0.3 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	1.5%	1.5 %	Immersion; ASTM D570(2)

Mechanical Properties*

Hardness, Rockwell M		M125	ASTM D785
Hardness, Rockwell		E90	ASTM D785
Hardness, Shore D		90	ASTM D2240
Tensile Strength, Ultimate	159 MPa	23,000 psi	ASTM D638
Elongation at Break	4 %	4 %	ASTM D638
Tensile Modulus	6900 MPa	1,000,000 psi	ASTM D638
Flexural Modulus	6760 MPa	980,000 psi	ASTM D790
Flexural Yield Strength	207 MPa	30,000 psi	ASTM D790
Compressive Strength	276 MPa	40,000 psi	10% Def.; ASTM D695
Compressive Modulus	4828 MPa	700,000 psi	ASTM D695
Izod Impact (notched)	52 J/M	1.0	ASTM D256 Type A

Thermal Properties

Melt Point/T _g	275 °C	527°F	ASTM D3418
Heat Deflection Temp (264 psi)	278°C	532°F	ASTM TMA
Coefficient of Linear Thermal Expansion	1.6 x 10 ⁻⁵ C ⁻¹	0.9 x 10 ⁻⁵ F ⁻¹	E831 TMA