

Solvay Specialty Polymers Torlon® 7130 Polyamide-imide (PAI), 30% Carbon Fiber

Category : Polymer , Thermoplastic , Polyamide-imide (PAI)

Material Notes:

Torlon® 7130 is an 30% carbon-fiber reinforced grade of polyamide-imide (PAI) resin. It offers high strength and modulus, exceptional creep resistance, and good fatigue resistance. It has thermal expansion characteristics similar to steel, and therefore excellent dimensional stability. Features: Fatigue Resistant; Flame Retardant; Good Chemical Resistance; Good Compressive Strength; Good Creep Resistance; Good Dimensional Stability; High Heat Resistance; High Stiffness; High Temperature Strength; Semi Conductive Uses: Aerospace Applications; Aircraft Applications; Business Equipment; Connectors; Electrical/Electronic Applications; Film; Gears; Housings; Industrial Applications; Industrial Parts; Machine/Mechanical Parts; Metal Replacement; Oil/Gas Applications; Semiconductor Molding Compounds Additional Properties: Coefficient of Linear Thermal Expansion - ASTM D696 9.0E-6 cm/cm/°C Information provided by Solvay Specialty Polymers.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Solvay-Specialty-Polymers-Torlon-7130-Polyamide-imide-PAI-30-Carbon-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.48 g/cc	0.0535 lb/in ³	ASTM D792
Filler Content	30 %	30 %	Carbon Fiber
Water Absorption	0.26 % @Time 86400 sec	0.26 % @Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.00 - 0.0015 cm/cm	0.00 - 0.0015 in/in	

Mechanical Properties	Metric	English	Comments
Tensile Strength	221 MPa	32100 psi	ASTM D638
Tensile Stress	203 MPa	29400 psi	ASTM D1708
Flexural Strength	174 MPa @Temperature 232 °C	25200 psi @Temperature 450 °F	ASTM D790
	350 MPa @Temperature 23.0 °C	50800 psi @Temperature 73.4 °F	ASTM D790
Flexural Modulus	15.7 GPa @Temperature 232 °C	2280 ksi @Temperature 450 °F	ASTM D790
	19.9 GPa @Temperature 23.0 °C	2890 ksi @Temperature 73.4 °F	ASTM D790

Mechanical Properties	MetricPa	Englishpsi	Comments
Compressive Modulus	9.86 GPa	1430 ksi	ASTM D695
Izod Impact, Notched	0.480 J/cm	0.899 ft-lb/in	ASTM D256
Izod Impact, Unnotched	3.20 J/cm	5.99 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
Thermal Conductivity	0.520 W/m-K	3.61 BTU-in/hr-ftÂ²-Â°F	ASTM C177
Deflection Temperature at 1.8 MPa (264 psi)	282 Â°C	540 Â°F	Unannealed; ASTM D648

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	304 Â°C	579 Â°F	
Nozzle Temperature	371 Â°C	700 Â°F	
Mold Temperature	199 - 216 Â°C	390 - 421 Â°F	
Drying Temperature	177 Â°C @Time 10800 sec	351 Â°F @Time 3.00 hour	
Moisture Content	<= 0.050 %	<= 0.050 %	
Back Pressure	6.89 MPa	999 psi	
Screw Speed	50 - 100 rpm	50 - 100 rpm	

Descriptive Properties	Value	Comments
Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	Latin America	
	North America	
Form	Pellets	
Processing Technique	Injection Molding; Machining; Profile Extrusion	
RoHS Compliance	RoHS Compliant	
Screw L/D Ratio	18.0:1.0 to 24.0:1.0	

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