

Toyobo GLAMIDE® TY-791GT 6T-Nylon

Category : Polymer , Thermoplastic , Nylon , Nylon, Aromatic

Material Notes:

GLAMIDE® is very tough and exhibits high abrasion resistance. It has a high melting point and heat resistance, has well-balanced proportions of mechanical properties, performs self-distinguishing and a specific grade approved as UL94V-0 class is provided, and it exhibits excellent chemical resistance and oil resistance. Grade TY-791GT is a GF reinforced, aromatic 6T-Nylon. It has a good finish of coating and contains 55% GF.55

Order this product through the following link:

http://www.lookpolymers.com/polymer_Toyobo-GLAMIDE-TY-791GT-6T-Nylon.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.64 g/cc	1.64 g/cc	Absolute Drying; ASTM-D792
Filler Content	55 %	55 %	
Water Absorption	0.80 %	0.80 %	Absolute Drying; ASTM-D570
Moisture Absorption at Equilibrium	1.0 %	1.0 %	Absolute Drying; ASTM-D570
Linear Mold Shrinkage	0.0010 - 0.0020 cm/cm	0.0010 - 0.0020 in/in	Absolute Drying
	@Thickness 1.00 mm	@Thickness 0.0394 in	
	0.0020 - 0.0050 cm/cm	0.0020 - 0.0050 in/in	Absolute Drying
	@Thickness 3.00 mm	@Thickness 0.118 in	
Melt Flow	10 g/10 min	10 g/10 min	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	120	120	Absolute Drying; ASTM-D785
Tensile Strength, Ultimate	105 MPa	15200 psi	Practical Use (Water Absorption 1.0%); ASTM-D638
	@Temperature 80.0 °C	@Temperature 176 °F	
	120 MPa	17400 psi	Absolute Drying; ASTM-D638
	@Temperature 80.0 °C	@Temperature 176 °F	
	165 MPa	23900 psi	Practical Use (Water Absorption 1.0%); ASTM-D638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	230 MPa	33400 psi	Absolute Drying; ASTM-D638
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	250 MPa	36300 psi	Practical Use (Water Absorption 1.0%); ASTM-D638

Mechanical Properties	@Temperature -40.0 °C Metric	@Temperature -40.0 °F English	Comments
	280 MPa	40600 psi	Absolute Drying; ASTM-D638
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Break	1.6 %	1.6 %	Absolute Drying; ASTM-D638
	2.0 %	2.0 %	Practical Use (Water Absorption 1.0%); ASTM-D638
Flexural Strength	160 MPa	23200 psi	Practical Use (Water Absorption 1.0%); ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	180 MPa	26100 psi	Absolute Drying; ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	280 MPa	40600 psi	Practical Use (Water Absorption 1.0%); ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	320 MPa	46400 psi	Practical Use (Water Absorption 1.0%); ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	320 MPa	46400 psi	Absolute Drying; ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	355 MPa	51500 psi	Absolute Drying; ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Flexural Modulus	5.00 GPa	725 ksi	Practical Use (Water Absorption 1.0%); ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	7.50 GPa	1090 ksi	Absolute Drying; ASTM-D790
	@Temperature 80.0 °C	@Temperature 176 °F	
	13.0 GPa	1890 ksi	Practical Use (Water Absorption 1.0%); ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	15.0 GPa	2180 ksi	Practical Use (Water Absorption 1.0%); ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	16.0 GPa	2320 ksi	Absolute Drying; ASTM-D790
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	16.5 GPa	2390 ksi	Absolute Drying; ASTM-D790
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Compressive Strength	150 MPa	21800 psi	Absolute Drying; ASTM-D695

Mechanical Properties	Metric	English	Comments
	0.700 J/cm	1.31 ft-lb/in	Absolute Drying; ASTM-D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	0.850 J/cm	1.59 ft-lb/in	Practical Use (Water Absorption 1.0%); ASTM-D256
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	1.43 J/cm	2.68 ft-lb/in	Absolute Drying; ASTM-D256
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	1.80 J/cm	3.37 ft-lb/in	Practical Use (Water Absorption 1.0%); ASTM-D256
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	19.0 µm/m-°C	10.6 µin/in-°F	Absolute Drying; ASTM-D696
Deflection Temperature at 0.46 MPa (66 psi)	217 °C	423 °F	Absolute Drying; ASTM-D648
Deflection Temperature at 1.8 MPa (264 psi)	217 °C	423 °F	Absolute Drying; ASTM-D648
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+12 ohm-cm	1.00e+12 ohm-cm	Absolute Drying; ASTM-D257
Dielectric Strength	21.0 kV/mm	533 kV/in	Practical Use (Water Absorption 1.0%); ASTM-D149
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	28.0 kV/mm	711 kV/in	Absolute Drying; ASTM-D149
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Arc Resistance	94 sec	94 sec	Practical Use (Water Absorption 1.0%); ASTM-D495
	100 sec	100 sec	Absolute Drying; ASTM-D495
Comparative Tracking Index	550 V	550 V	IEC Method

Processing Properties	Metric	English	Comments
Melt Temperature	270 - 290 °C	518 - 554 °F	
Mold Temperature	80.0 - 100 °C	176 - 212 °F	
Injection Pressure	30.0 - 70.0 MPa	4350 - 10200 psi	

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