

Idemitsu Kosan TARFLON™ G1920

Glass fiber reinforced

Polycarbonate is known for its high impact resistance, good transparency and heat resistance, and superb precision and electrical properties.

Physical Properties	Metric	English	Comments
Density	1.33 g/cc	0.0480 lb/in ³	ISO 1183(JIS K7112)
Moisture Absorption	0.130 % @Time 86400 sec	0.130 % @Time 24.0 hour	50% RH; ISO 62(JIS K7209)
Linear Mold Shrinkage, Flow	0.0020 cm/cm @Thickness 2.00 mm	0.0020 in/in @Thickness 0.0787 in	Idemitsu Method
Linear Mold Shrinkage, Transverse	0.0060 cm/cm @Thickness 2.00 mm	0.0060 in/in @Thickness 0.0787 in	Idemitsu Method
Spiral Flow	18.0 cm @Thickness 2.00 mm	7.09 in @Thickness 0.0787 in	Width:10mm. Cylinder: 240°C/Mold: 40°C. Inj.Pressure: 125 MPa.; Idemitsu Method

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	70	70	ISO 2039-2 (JIS K7202-2)
Tensile Strength, Yield	110 MPa	16000 psi	ISO 527-1,2 (JIS K7161, 7162)
Elongation at Break	4.0 %	4.0 %	Nominal; ISO 527-1,2 (JIS K7161, 7162)
Flexural Strength	160 MPa	23200 psi	ISO 178 (JIS K7171)
Flexural Modulus	5.90 GPa	856 ksi	ISO 178 (JIS K7171)
Charpy Impact, Notched	1.30 J/cm ² @Temperature 23.0 °C	6.19 ft-lb/in ² @Temperature 73.4 °F	ISO 179-1(JIS K7111)

Electrical Properties	Metric	English	Comments
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Volume Resistivity	>= 1.00e+16 ohm-cm >= 1.00e+16 ohm-cm		ASTM D257
Dielectric Constant	3.15 @Frequency 1e+6 Hz	3.15 @Frequency 1e+6 Hz	IEC 60250
Dissipation Factor	0.0090 @Frequency 1e+6 Hz	0.0090 @Frequency 1e+6 Hz	IEC 60250

Thermal Properties	Metric	English	Comments
CTE, linear	25.0 µm/m-°C	13.9 µin/in-°F	ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	145 °C	293 °F	ISO 75-1,2 (JIS K7191-1,2)
Flammability, UL94	HB @Thickness 0.700 mm	HB @Thickness 0.0276 in	

Processing Properties	Metric	English	Comments
Melt Temperature	260 - 300 °C	500 - 572 °F	Cylinder Temperature
	<= 320 °C	<= 608 °F	Max Cylinder Temperature
Mold Temperature	80.0 - 120 °C	176 - 248 °F	
Drying Temperature	120 °C @Time 18000 - 28800 sec	248 °F @Time 5.00 - 8.00 hour	