

Idemitsu Kosan TARFLON™ AC1050

Polycarbonate is known for its high impact resistance, good transparency and heat resistance, and superb precision and electrical properties. TARFLON is used in a wide range of applications such as house wares, office equipment, mobile devices, communications equipment, display devices such as LCD backlight parts, automotive, lighting and many fields.

Physical Properties	Metric	English	Comments
Density	1.22 g/cc	0.0441 lb/in ³	ISO 1183(JIS K7112)

Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 2.00 mm	0.0050 - 0.0070 in/in @Thickness 0.0787 in	Idemitsu Method
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm @Thickness 2.00 mm	0.0050 - 0.0070 in/in @Thickness 0.0787 in	Idemitsu Method

Melt Flow	31.72 g/10 min @Load 2.16 kg, Temperature 280 °C	31.72 g/10 min @Load 4.76 lb, Temperature 536 °F	ISO 1133 (JIS K7210)
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Spiral Flow	28.0 cm @Thickness 2.00 mm	11.0 in @Thickness 0.0787 in	Width:10mm. Cylinder: 240°C/Mold: 40°C. Inj.Pressure: 125 MPa.; Idemitsu Method
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Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	62.0 MPa	8990 psi	ISO 527-1,2 (JIS K7161, 7162)

Elongation at Break	80 %	80 %	Nominal; ISO 527-1,2 (JIS K7161, 7162)
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Flexural Strength	94.0 MPa	13600 psi	ISO 178 (JIS K7171)
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Flexural Modulus	3.00 GPa	435 ksi	ISO 178 (JIS K7171)
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Charpy Impact, Notched	1.50 J/cm ² @Temperature 23.0 °C	7.14 ft-lb/in ² @Temperature 73.4 °F	ISO 179-1(JIS K7111)
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Electrical Properties	Metric	English	Comments
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Comparative Tracking Index	175 - 250 V	175 - 250 V	UL746A
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Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	119 °C	246 °F	ISO 75-1,2 (JIS K7191-1,2)
UL RTI, Electrical	80.0 °C	176 °F	UL746B
UL RTI, Mechanical with Impact	80.0 °C	176 °F	UL746B

UL RTI, Mechanical without Impact	80.0 °C	176 °F	UL746B
Flammability, UL94	V-1 @Thickness 1.50 mm	V-1 @Thickness 0.0591 in	
	V-0 @Thickness 2.00 mm	V-0 @Thickness 0.0787 in	
	5VA @Thickness 2.00 mm	5VA @Thickness 0.0787 in	

Processing Properties	Metric	English	Comments
Melt Temperature	260 - 280 °C	500 - 536 °F	Cylinder Temperature
	<= 290 °C	<= 554 °F	Max Cylinder Temperature
Mold Temperature	60.0 - 90.0 °C	140 - 194 °F	
Drying Temperature	120 °C @Time 18000 - 28800 sec	248 °F @Time 5.00 - 8.00 hour	