

Idemitsu Kosan TARFLON™ LC1500

Light guiding Standard. LC1500 has been used widely in LCD backlight parts and automotive daylight running lamp (DRL).
 General Tarflon™ Information: 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	1.20 g/cc	0.0434 lb/in ³	ISO 1183(JIS K7112)
Moisture Absorption	0.230 % @Time 86400 sec	0.230 % @Time 24.0 hour	50% RH; ISO 62(JIS K7209)
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	Idemitsu Method
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	Idemitsu Method
Melt Flow	78 g/10 min @Load 1.20 kg, Temperature 300 °C	78 g/10 min @Load 2.65 lb, Temperature 572 °F	ISO 1133 (JIS K7210)
Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	50	50	ISO 2039-2 (JIS K7202-2)
Hardness, Rockwell R	120	120	ISO 2039-2 (JIS K7202-2)
Tensile Strength, Yield	65.0 MPa	9430 psi	ISO 527-1,2 (JIS K7161, 7162)
Elongation at Break	80 %	80 %	ISO 527-1,2 (JIS K7161, 7162)
Flexural Strength	90.0 MPa	13100 psi	ISO 178 (JIS K7171)
Flexural Modulus	2.30 GPa	334 ksi	ISO 178 (JIS K7171)
Charpy Impact, Notched	1.50 J/cm ²	7.14 ft-lb/in ²	ISO 179-1 (JIS K7111)
Thermal Properties	Metric	English	Comments
CTE, linear	65.0 μm/m-°C	36.1 μin/in-°F	ISO 11359-2
Deflection Temperature at 1.8 MPa (264 psi)	127 °C	261 °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-2
@Thickness 0.400 mm

V-2
@Thickness 0.0157 in

NC

Optical Properties	Metric	English	Comments
Refractive Index	1.585	1.585	ASTM D542

Transmission, Visible

90 %

90 %

Total Luminous; ISO 13468-1
(JIS K7361-1)

Processing Properties	Metric	English	Comments
Melt Temperature	240 - 260 °C	464 - 500 °F	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	