

Teijin Panlite® AD-5503 Optical Use Polycarbonate Resin

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Molded

Material Notes:

High fluidity grade for optical media that provides low optical distortion moldings. Impurities in pellets are severely controlled, and resulting high quality is obtaining good reputation. Applications: Optical disc moldings such as CD, CD-ROM, MO, MD and DVD. Optical lens moldings. Information provided by Teijin Chemicals Ltd.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Teijin-Panlite-AD-5503-Optical-Use-Polycarbonate-Resin.php

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ISO 1183
Water Absorption	0.20 %	0.20 %	in water, 23 ^o C, 24h; ISO 62
Linear Mold Shrinkage	0.0050 - 0.0070 cm/cm @Thickness 4.00 mm	0.0050 - 0.0070 in/in @Thickness 0.157 in	
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm @Thickness 4.00 mm	0.0050 - 0.0070 in/in @Thickness 0.157 in	
Melt Flow	64.8 g/10 min @Load 1.20 kg, Temperature 300 ^o C	64.8 g/10 min @Load 2.65 lb, Temperature 572 ^o F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	63.0 MPa	9140 psi	50mm/min; ISO 527
Elongation at Break	>= 50 %	>= 50 %	50mm/min; ISO 527
Elongation at Yield	6.0 %	6.0 %	50mm/min; ISO 527
Tensile Modulus	2.45 GPa	355 ksi	1mm/min; ISO 527
Flexural Strength	96.0 MPa	13900 psi	2mm/min; ISO 178
Flexural Modulus	2.40 GPa	348 ksi	2mm/min; ISO 178
Charpy Impact Unnotched	NB	NB	ISO 179
Charpy Impact, Notched	3.00 J/cm ²	14.3 ft-lb/in ²	ISO 179

Thermal Properties	Metric	English	Comments
CTE, linear	70.0 ^o μm/m- ^o C @Temperature 20.0	38.9 ^o μin/in- ^o F	ISO 11359

Thermal Properties	Metric	English	Comments
CTE, linear, Transverse to Flow	70.0 $\mu\text{m/m}\cdot^\circ\text{C}$ @Temperature 20.0 $^\circ\text{C}$	38.9 $\mu\text{in/in}\cdot^\circ\text{F}$ @Temperature 68.0 $^\circ\text{F}$	ISO 11359
Deflection Temperature at 0.46 MPa (66 psi)	138 $^\circ\text{C}$	280 $^\circ\text{F}$	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	124 $^\circ\text{C}$	255 $^\circ\text{F}$	ISO 75
Vicat Softening Point	143 $^\circ\text{C}$	289 $^\circ\text{F}$	50 $^\circ\text{C/hr}$, 50N; ISO 306

Optical Properties	Metric	English	Comments
Refractive Index	1.585	1.585	ASTM D542
Transmission, Visible	89 % @Thickness 3.00 mm	89 % @Thickness 0.118 in	ASTM D1003

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00\text{e}+13 \text{ ohm}\cdot\text{cm}$	$\geq 1.00\text{e}+13 \text{ ohm}\cdot\text{cm}$	IEC 60093
Surface Resistance	$\geq 1.00\text{e}+15 \text{ ohm}$	$\geq 1.00\text{e}+15 \text{ ohm}$	IEC 60093
Dielectric Constant	3.0 @Frequency 1e+6 Hz	3.0 @Frequency 1e+6 Hz	IEC 60250
	3.1 @Frequency 100 Hz	3.1 @Frequency 100 Hz	IEC 60250
Dielectric Strength	30.0 kV/mm	762 kV/in	IEC 60243
Dissipation Factor	0.0010 @Frequency 100 Hz	0.0010 @Frequency 100 Hz	IEC 60250
	0.0090 @Frequency 1e+6 Hz	0.0090 @Frequency 1e+6 Hz	IEC 60250
Comparative Tracking Index	250 V	250 V	IEC 60112

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China