Styron CALIBREâ„¢ 303-10 Polycarbonate Resin

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Overview: CALIBREâ„¢ 300-10 polycarbonate resins offer exceptional impact resistance, heat distortion resistance and optical clarity as well as high melt strength for blow molding and sheet applications. The CALIBREâ„¢ 300-10 series products are available in 4 additive packages: CALIBREâ„¢ 300: No mold release or UV Stabilizer. CALIBREâ„¢ 301: Mold release. CALIBREâ„¢ 302: UV stabilizer. CALIBREâ„¢ 303: Mold release and UV stabilizer.Applications:AppliancesStorage media housingsBusiness equipment Electrical components Lighting Transportation Houseware Recreation Packaging applications Govt. and Industry Standards:CSAUnderwriters Laboratory (UL) Information provided by Styron

Order this product through the following link:
http://www.lookpolymers.com/polymer_Styron-CALIBRE-303-10-Polycarbonate-Resin.php

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/inÂ³	ISO 1183/B
Water Absorption	0.32 % @Temperature 23.0 Â°C	0.32 % @Temperature 73.4 Â°F	Equilibrium, 50% RH; ISO 62
	0.15 % @Temperature 23.0 Â°C, Time 86400 sec	0.15 % @Temperature 73.4 Â°F, Time 24.0 hour	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ISO 294-4
Melt Flow	10 g/10 min @Load 1.20 kg, Temperature 300 Â°C	10 g/10 min @Load 2.65 lb, Temperature 572 Â°F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	73	73	ASTM D785
Hardness, Rockwell R	118	118	ASTM D785
Tensile Strength at Break	70.0 MPa	10200 psi	ISO 527-2/50
Tensile Strength, Yield	60.0 MPa	8700 psi	ISO 527-2/50
Elongation at Break	150 %	150 %	ISO 527-2/50
Elongation at Yield	6.0 %	6.0 %	ISO 527-2/50
Tensile Modulus	2.30 GPa	334 ksi	ISO 527-2/50
Flexural Strength	97.0 MPa	14100 psi	2.0 mm/min; ISO 178

Mechanical Properties	Metric	English	Comments
Flexural Modulus	2.40 GPa	348 ksi	2.0 mm/min; ISO 178
Izod Impact, Unnotched (ISO)	90.0 kJ/mÂ² @Temperature 23.0 Â°C	42.8 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 180/A
Charpy Impact, Notched	1.30 J/cmÂ² @Temperature -30.0 Â°C	6.19 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179/1eA
	3.50 J/cmÂ² @Temperature 12.0 Â°C	16.7 ft-lb/inÂ² @Temperature 53.6 Â°F	ISO 179/1eA
Abrasion	45	45	[%] Taber; ISO 9352

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	70.0 Âµm/m-Â°C	38.9 Âµin/in-Â°F	ISO 11359-2
Hot Ball Pressure Test	125 Â°C	257 Â°F	IEC 60335-1
Deflection Temperature at 0.46 MPa (66 psi)	144 Â°C	291 Â°F	Annealed; ISO 75-2/B
Deflection Temperature at 1.8 MPa (264 psi)	125 Â°C	257 Â°F	Unannealed; ISO 75-2/A
	141 Â°C	286 Â°F	Annealed; ISO 75-2/A
Vicat Softening Point	149 Â°C	300 Â°F	ISO 306/B50
Flammability, UL94	HB @Thickness 1.59 mm	HB @Thickness 0.0626 in	
	HB @Thickness 3.20 mm	HB @Thickness 0.126 in	
Oxygen Index	26 %	26 %	ISO 4289-2
Glow Wire Test	875 Â°C @Thickness 2.00 mm	1610 Â°F @Thickness 0.0787 in	IEC 60695-2-12
	875 Â°C @Thickness 3.00 mm	1610 Â°F @Thickness 0.118 in	IEC 60695-2-12
	900 Â°C @Thickness 1.00 mm	1650 Â°F @Thickness 0.0394 in	IEC 60695-2-12

Optical Properties	Metric	English	Comments
Refractive Index	1.586	1.586	ASTM D542; ISO 489
Haze	1.0 %	1.0 %	ASTM D1003
Transmission, Visible	89 %	89 %	ASTM D1003

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Dielectric Constant	3.0 @Frequency 60.0 Hz	3.0 @Frequency 60.0 Hz	IEC 60250
	3.0 @Frequency 1.00e+6 Hz	3.0 @Frequency 1.00e+6 Hz	IEC 60250
	3.0 @Frequency 100 Hz	3.0 @Frequency 100 Hz	IEC 60250
Dielectric Strength	17.0 kV/mm	432 kV/in	IEC 60243-1
Dissipation Factor	0.0010 @Frequency 50.0 Hz	0.0010 @Frequency 50.0 Hz	ASTM D150
	0.0020 @Frequency 1.00e+6 Hz	0.0020 @Frequency 1.00e+6 Hz	ASTM D150
Comparative Tracking Index	250 V @Thickness 2.00 mm	250 V @Thickness 0.0787 in	Solution A; IEC 60112
Hot Wire Ignition, HWI	775 sec @Thickness 2.00 mm	775 sec @Thickness 0.0787 in	IEC 60695-2-13
	775 sec @Thickness 3.00 mm	775 sec @Thickness 0.118 in	IEC 60695-2-13
	800 sec @Thickness 1.00 mm	800 sec @Thickness 0.0394 in	IEC 60695-2-13

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