

Styron CALIBREâ„¸ 201-15 Polycarbonate Resin

Category : Polymer , Thermoplastic , Polycarbonate (PC)

Material Notes:

Overview: CALIBREâ„¸ 201-15 polycarbonate resins are produced in compliance with the US Food and Drug Administration (FDA) and EU food contact regulations. They provide excellent impact resistance, heat distortion resistance and optical clarity. The CALIBREâ„¸ 200-15 series products are available in 4 additive packages: CALIBREâ„¸ 200: No mold release or UV Stabilizer. CALIBREâ„¸ 201: Mold release. CALIBREâ„¸ 202: UV stabilizer. CALIBREâ„¸ 203: Mold release and UV stabilizer. (Note that CALIBRE 202 and 203 grades are not available in Europe and do not comply with EU food contact regulations) Applications: Food utensils Beverages containers Food processor housings Other packaging applications Govt. and Industry Standards: US FDA 21 CFR 177.1580 CSA Underwriters Laboratory (UL) EU food contact 2002/72/EC Information provided by Styron

Order this product through the following link:

http://www.lookpolymers.com/polymer_Styron-CALIBRE-201-15-Polycarbonate-Resin.php

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ISO 1183/A; ASTM D792
Water Absorption	0.32 %	0.32 %	Equilibrium, 50% RH; ISO 62; ASTM D570
	@Temperature 23.0 Å°C	@Temperature 73.4 Å°F	
Linear Mold Shrinkage, Flow	0.15 %	0.15 %	ISO 62; ASTM D570
	@Temperature 23.0 Å°C, Time 86400 sec	@Temperature 73.4 Å°F, Time 24.0 hour	
Melt Flow	15 g/10 min	15 g/10 min	ISO 1133; ASTM D1238
	@Load 1.20 kg, Temperature 300 Å°C	@Load 2.65 lb, Temperature 572 Å°F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	72	72	ASTM D785
Hardness, Rockwell R	118	118	ASTM D785
Tensile Strength at Break	71.0 MPa	10300 psi	50 mm/min; ASTM D638
Tensile Strength, Yield	60.0 MPa	8700 psi	50 mm/min; ASTM D638; ISO 527-2/50
Elongation at Break	150 %	150 %	50 mm/min; ASTM D638
Elongation at Yield	6.0 %	6.0 %	50 mm/min; ASTM D638; ISO 527-2/50
Tensile Modulus			ISO 527-2/50

Mechanical Properties	Metric	English	Comments
	2.34 GPa	339 ksi	50 mm/min; ASTM D638
Flexural Strength	69.5 MPa	10100 psi	Method I (3 point load), 2.0 mm/min; ASTM D790
	97.0 MPa	14100 psi	2.0 mm/min; ISO 178
Flexural Modulus	2.40 GPa	348 ksi	2.0 mm/min; ISO 178
	2.41 GPa	350 ksi	Method I (3 point load), 2.0 mm/min; ASTM D790
Izod Impact, Notched	8.50 J/cm @Temperature 23.0 Â°C	15.9 ft-lb/in @Temperature 73.4 Â°F	ASTM D256
Izod Impact, Notched (ISO)	83.0 kJ/mÂ² @Temperature 23.0 Â°C	39.5 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 180/4A
Izod Impact, Unnotched (ISO)	NB @Temperature 23.0 Â°C	NB @Temperature 73.4 Â°F	ISO 180; ASTM D256A
Tensile Impact Strength	462 kJ/mÂ²	220 ft-lb/inÂ²	ASTM D1822
Dart Drop, Total Energy	87.0 J	64.2 ft-lb	3.39 m/sec; ASTM D3763
Abrasion	45	45	[%] Taber; ASTM D1004

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	68.0 Âµm/m-Â°C @Temperature -40.0 - 82.0 Â°C	37.8 Âµin/in-Â°F @Temperature -40.0 - 180 Â°F	ASTM D696
Hot Ball Pressure Test	125 Â°C	257 Â°F	IEC 60335-1
Deflection Temperature at 0.46 MPa (66 psi)	143 Â°C	289 Â°F	Annealed; ISO 75-2/B; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	127 Â°C	261 Â°F	Unannealed; ASTM D648
	127 Â°C	261 Â°F	Unannealed; ISO 75-2/A
	140 Â°C	284 Â°F	Annealed; ISO 75-2/A; ASTM D648
Vicat Softening Point	148 Â°C @Load 5.10 kg	298 Â°F @Load 11.2 lb	Rate A (50Â°C/h); ASTM D1525; ISO 360/B50
	HB	HB	

Flammability, UL 94			
Thermal Properties	Metric	English	Comments
	@Thickness 1.59 mm	@Thickness 0.0626 in	
	HB	HB	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	26 %	26 %	ISO 4289-2

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	2.00e+17 ohm-cm	2.00e+17 ohm-cm	ASTM D257
Dielectric Constant	3.0	3.0	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
Dielectric Strength	3.0	3.0	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dissipation Factor	0.0010	0.0010	ASTM D150
	@Frequency 50.0 Hz	@Frequency 50.0 Hz	
Comparative Tracking Index	0.0020	0.0020	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	250 V	250 V	Solution A; IEC 60112
	@Thickness 2.00 mm	@Thickness 0.0787 in	

Descriptive Properties	Value	Comments
Average Extent of Burring	3 cm	ASTM D635

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