

## Styron CALIBRE<sup>®</sup>,ç 200-14 Polycarbonate Resin

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Overview: CALIBRE<sup>®</sup>,ç 200-14 polycarbonate resin is a natural, FDA compliant, 14 melt flow rate general purpose polycarbonate resin with no mold release or UV stabilizer. Govt. and Industry Standards: US FDA 21 CFR 177.1580CSA Underwriters Laboratory (UL) EU food contact 200/72/EC Applications: Food processors Beverage containers Food utensils Other packaging applications Information provided by Styron

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styron-CALIBRE-200-14-Polycarbonate-Resin.php](http://www.lookpolymers.com/polymer_Styron-CALIBRE-200-14-Polycarbonate-Resin.php)

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in <sup>3</sup>	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	14 g/10 min	14 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; ISO 527-2/50; ASTM D638
Elongation at Break	>= 50 %	>= 50 %	ISO 527-2/50
	150 %	150 %	
Elongation at Yield	6.0 %	6.0 %	50 mm/min; ISO 527-2/50; ASTM D638
Tensile Modulus	2.30 GPa	334 ksi	ISO 527-2/50
	2.34 GPa	339 ksi	

Flexural Strength Mechanical Properties	96.5 MPa Metric	14000 psi English	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)	82.0 kJ/mÂ² @Temperature 23.0 Â°C	39.0 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 180/A
Izod Impact, Unnotched (ISO)	NB @Temperature 23.0 Â°C	NB @Temperature 73.4 Â°F	ASTM D256; ISO 180
Charpy Impact Unnotched	NB @Temperature -30.0 Â°C	NB @Temperature -22.0 Â°F	ISO 179/1eU
	NB @Temperature 23.0 Â°C	NB @Temperature 73.4 Â°F	ISO 179/1eU
Charpy Impact, Notched	1.20 J/cmÂ² @Temperature -30.0 Â°C	5.71 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179/1eA
	8.00 J/cmÂ² @Temperature 23.0 Â°C	38.1 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 179/1eA
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 D1044

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

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (264 psi)	143 °C	289 °F	Annealed; ISO 75-2/B; ASTM D648
	127 °C	261 °F	Unannealed; ASTM D648
	127 °C	261 °F	Unannealed; ISO 75-2/A
	140 °C	284 °F	Annealed; ISO 75-2/B; ASTM D648
Vicat Softening Point	148 °C	298 °F	Rate A (50 °C/h); ISO 306/B50; ASTM D1525
	@Load 5.10 kg	@Load 11.2 lb	
Flammability, UL94	HB	HB	
	@Thickness 1.59 mm	@Thickness 0.0626 in	
	HB	HB	
	@Thickness 3.20 mm	@Thickness 0.126 in	
Oxygen Index	26 %	26 %	ISO 4589-2
Glow Wire Test	849 °C	1560 °F	IEC 60695-2-13
	@Thickness 2.00 mm	@Thickness 0.0787 in	

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+18 ohm-cm	2.00e+18 ohm-cm	ASTM D257
Dielectric Constant	3.0	3.0	ASTM D150
	@Frequency 60.0 Hz	@Frequency 60.0 Hz	
	3.0	3.0	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	17.0 kV/mm	432 kV/in	ASTM D149
	17.0 kV/mm	432 kV/in	IEC 60243-1
Dissipation Factor	0.0010	0.0010	ASTM D150
	@Frequency 50.0 Hz	@Frequency 50.0 Hz	
	0.0020	0.0020	

Electrical Properties	Metric	English	Comments
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	250 V @Thickness 2.00 mm	250 V @Thickness 0.0787 in	Solution A; IEC 60112

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

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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