

## Styron CALIBRE<sup>®</sup>,ç 893-10 Polycarbonate Resin

Category : Polymer , Thermoplastic , Polycarbonate (PC)

### Material Notes:

Overview: CALIBRE<sup>®</sup>,ç 893-10 Series provides superior ignition resistance in opaque applications. The CALIBRE 891-10 series products are available in 2 additive packages: CALIBRE 891: Mold release, CALIBRE 893: Mold release and UV stabilizer. Main Characteristics:

Underwriters Laboratory (UL) Applications: Electronics Business equipment Appliances Information provided by Styron

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styron-CALIBRE-893-10-Polycarbonate-Resin.php](http://www.lookpolymers.com/polymer_Styron-CALIBRE-893-10-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	0.15 %	0.15 %	ISO 62; ASTM D570
	@Temperature 23.0 Â°C, Time 86400 sec	@Temperature 73.4 Â°F, Time 24.0 hour	
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ISO 294-4; ASTM D955
Melt Flow	10 g/10 min	10 g/10 min	ASTM D1238; ISO 1133
	@Load 1.20 kg, Temperature 300 Â°C	@Load 2.65 lb, Temperature 572 Â°F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	59	59	ASTM D785
Hardness, Rockwell R	123	123	ASTM D785
Tensile Strength at Break	58.6 MPa	8500 psi	50 mm/min; ASTM D638
	59.0 MPa	8560 psi	ISO 527-2/50
Tensile Strength, Yield	61.0 MPa	8850 psi	ISO 527-2/50
	61.4 MPa	8910 psi	50 mm/min; ASTM D638
Elongation at Break	120 %	120 %	50 mm/min; ISO 527-2/50; ASTM D638
Tensile Modulus	2.38 GPa	345 ksi	50 mm/min; ISO 527-2/50; ASTM D638
Flexural Strength	97.9 MPa	14200 psi	Method I (3 point load), 2.0 mm/min; ISO 178; ASTM D790
Flexural Modulus	2.33 GPa	338 ksi	Method I (3 point load), 2.0 mm/min; ISO 178; ASTM D790
	6.90 J/cm	12.9 ft-lb/in	

Izod Impact Notched Mechanical Properties	Metric @ Temperature 23.0 Â°C	English @ Temperature 73.4 Â°F	ASTM D256 Comments
Izod Impact, Notched (ISO)	68.0 kJ/mÂ² @Temperature 23.0 Â°C	32.4 ft-lb/inÂ² @Temperature 73.4 Â°F	ISO 180/A
Tensile Impact Strength	630 kJ/mÂ²	300 ft-lb/inÂ²	ASTM D1822
Dart Drop, Total Energy	62.1 J	45.8 ft-lb	3.39 m/sec; ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	65.0 Âµm/m-Â°C	36.1 Âµin/in-Â°F	ASTM D696
Deflection Temperature at 0.46 MPa (66 psi)	137 Â°C	279 Â°F	Annealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	127 Â°C	261 Â°F	Unannealed; ASTM D648
Vicat Softening Point	151 Â°C @Load 5.10 kg	304 Â°F @Load 11.2 lb	Rate A (50Â°C/h); ASTM D1525
Flammability, UL94	V-0 @Thickness 1.59 mm	V-0 @Thickness 0.0626 in	
	V-0 @Thickness 3.20 mm	V-0 @Thickness 0.126 in	
	5VB @Thickness 3.20 mm	5VB @Thickness 0.126 in	
Oxygen Index	36 %	36 %	ASTM 2863

## Contact Songhan Plastic Technology Co.,Ltd.

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