

## Styron CALIBRE® 891 10 Polycarbonate, General Purpose

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate, Unreinforced, Flame Retardant

### Material Notes:

CALIBRE® 890 series polycarbonate resins are a general purpose, superior ignition resistant grade equipped with a mold release package. The CALIBRE 890 series resins exhibit a high heat resistance, high impact and are rated V-0 at 1.6 mm, 5V at 3.2 mm according to UL-94(1). The CALIBRE 890 series resins are typically used in building and construction and in business equipment applications. Available Melt Flow Rates: 10, 20 Associated products: CALIBRE 891: including a mold release package CALIBRE 893: including a mold release and UV stabilizer package. (1) These numerical flame spread ratings are small scale test values and are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Ignition resistant chemical additives increase resistance to burning from minor flame sources and permit properly manufactured end products to meet the requirements of certain flammability tests, but resins will burn rapidly under the right conditions of heat and oxygen feed. Data provided by Dow Chemical. This product line was spun off from Dow Chemical to Styron in 2010.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styron-CALIBRE-891-10-Polycarbonate-General-Purpose.php](http://www.lookpolymers.com/polymer_Styron-CALIBRE-891-10-Polycarbonate-General-Purpose.php)

| Physical Properties   | Metric  | English   | Comments  |
|-----------------------|---|---|-----------|
| Density               | 1.20 g/cc   | 0.0434 lb/in <sup>3</sup>                           | ASTM Data |
| Linear Mold Shrinkage | 0.0060 cm/cm  | 0.0060 in/in  |           |
| Melt Flow             | 10 g/10 min<br>@Load 1.20 kg,<br>Temperature 300 °C | 10 g/10 min<br>@Load 2.65 lb,<br>Temperature 572 °F | ASTM Data |

| Mechanical Properties      | Metric                 | English                    | Comments           |
|----------------------------|------------------------|----------------------------|--------------------|
| Hardness, Rockwell R       | 123                    | 123                        |                    |
| Tensile Strength, Ultimate | 58.6 MPa               | 8500 psi                   | ASTM Data          |
| Tensile Strength, Yield    | 60.0 MPa               | 8700 psi                   | ISO Data           |
| Elongation at Break        | 115 %                  | 115 %                      | ASTM Data          |
| Elongation at Yield        | 6.0 %                  | 6.0 %                      | ISO Data           |
| Tensile Modulus            | 2.38 GPa               | 345 ksi                    | ASTM Data          |
| Izod Impact, Notched       | 6.94 J/cm              | 13.0 ft-lb/in              | ASTM Data          |
| Charpy Impact Unnotched    | NB                     | NB                         | ISO Data           |
|                            | NB                     | NB                         | ISO Data, Low Temp |
| Charpy Impact, Notched     | 1.50 J/cm <sup>2</sup> | 7.14 ft-lb/in <sup>2</sup> | ISO Data, Low Temp |

| Mechanical Properties | 3.00 J/cm <sup>2</sup><br>Metric   | 14.3 ft-lb/in <sup>2</sup><br>English | ISO Data<br>Comments           |
|-----------------------|------------------------------------|---------------------------------------|--------------------------------|
| Impact Test           | 62.2 J<br>@Temperature 23.0<br>Â°C | 45.9 ft-lb<br>@Temperature 73.4 Â°F   | Instrumented Dart Total Energy |

| Thermal Properties                             | Metric                                     | English                                   | Comments              |
|--|--|---|-----------------------|
| CTE, linear, Parallel to Flow                  | 68.4 Âµm/m-Â°C<br>@Temperature 20.0<br>Â°C | 38.0 Âµin/in-Â°F<br>@Temperature 68.0 Â°F | ASTM data             |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 127 Â°C                                    | 261 Â°F                                   | Unannealed; ASTM Data |
| Vicat Softening Point                          | 151 Â°C                                    | 304 Â°F                                   |                       |
| Flammability, UL94                             | 5VA<br>@Thickness 3.20 mm                  | 5VA<br>@Thickness 0.126 in                | UL94                  |
| Oxygen Index                                   | 36 %                                       | 36 %                                      |                       |

## 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