

## Total PSC 1810/1811 Polystyrene

Category : Polymer , Thermoplastic , Polystyrene (PS) , Polystyrene, Molded, Unreinforced

### Material Notes:

1811 is a very easy flowing crystal polystyrene designed, principally, for the injection molding industry. The excellent processing characteristics of this grade allows for the production of articles which are very thin and/or have complex flow patterns. In extrusion, 1810 is used as a high capping layer in co-extrusion. 1810 is not externally lubricated. Application Information provided provided by Total Petrochemicals. Total Petrochemicals acquired former Fina and Atofina plastics product lines. This product was previously known as LACQRENE®

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Total-PSC-18101811-Polystyrene.php](http://www.lookpolymers.com/polymer_Total-PSC-18101811-Polystyrene.php)

Physical Properties	Metric	English	Comments
Density	1.05 g/cc	0.0379 lb/in <sup>3</sup>	ISO 1183
Water Absorption	<= 0.10 %	<= 0.10 %	ISO 62
Linear Mold Shrinkage	0.0040 - 0.0070 cm/cm	0.0040 - 0.0070 in/in	
Melt Flow	20 g/10 min @Load 5.00 kg, Temperature 200 °C	20 g/10 min @Load 11.0 lb, Temperature 392 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell L	70	70	ISO 2039-2
Tensile Strength at Break	42.0 MPa	6090 psi	ISO 527-2
Elongation at Break	2.0 %	2.0 %	ISO 527-2
Tensile Modulus	3.10 GPa	450 ksi	ISO 527-2
Flexural Modulus	2.90 GPa	421 ksi	ISO 178
Charpy Impact Unnotched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179/1eU

Thermal Properties	Metric	English	Comments
CTE, linear	71.0 µm/m-°C	39.4 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Deflection Temperature at 0.46 MPa (66 psi)	81.0 °C	178 °F	Annealed; ISO 75-2A
Deflection Temperature at 1.8 MPa (264 psi)	72.0 °C	162 °F	Unannealed; ISO 75-2A
	85.0 °C	185 °F	50N (T° increase = 5°C/h); ISO

Vicat Softening Point Thermal Properties	Metric	English	306850 Comments
	90.0 °C	194 °F	10N (T° increase = 50°C/h); ISO 306A50

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	$\geq 1.00e+14$ ohm	$\geq 1.00e+14$ ohm	ISO IEC93
Dielectric Strength	135 kV/mm	3430 kV/in	

## Contact Songhan Plastic Technology Co.,Ltd.

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