

## Styrolution Polystyrol 454 C GR 2 PS

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

### Material Notes:

Description: Polystyrol 454 C is an impact resistant polystyrene with a good balance of toughness, high flow, heat resistance and high gloss. Applications: TV-front panels and back covers, VCR fronts, internal parts for refrigerators, office and household articles. Vacuum cleaner housings; toilet flush; telephones; air conditioner housings; toys; Coextruded gloss layers. Information provided by STYROLUTION, which is a joint venture between BASF and INEOS

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Styrolution-Polystyrol-454-C-GR-2-PS.php](http://www.lookpolymers.com/polymer_Styrolution-Polystyrol-454-C-GR-2-PS.php)

Physical Properties	Metric	English	Comments
Density	1.022 g/cc	0.03692 lb/in <sup>3</sup>	ISO 1183
Water Absorption	<= 0.10 %	<= 0.10 %	ISO 62
Moisture Absorption at Equilibrium	<= 0.10 %	<= 0.10 %	23 <sup>o</sup> C/50% RH; ISO 62
Melt Flow	14.308 g/10 min @Load 5.00 kg, Temperature 200 <sup>o</sup> C	14.308 g/10 min @Load 11.0 lb, Temperature 392 <sup>o</sup> F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	90.0 MPa @Load 36.5 kg, Time 30.0 sec	13100 psi @Load 80.5 lb, Time 0.00833 hour	ISO 2039-1
Tensile Strength, Yield	27.0 MPa	3920 psi	50 mm/min; ISO 527-1/-2
Elongation at Break	25 %	25 %	Nominal, 50mm/min; ISO 527-1/-2
Elongation at Yield	1.4 %	1.4 %	50 mm/min; ISO 527-1/-2
Tensile Modulus	2.20 GPa	319 ksi	ISO 527-1/-2
Flexural Strength	41.0 MPa	5950 psi	ISO 178
Shear Modulus	0.900 GPa	131 ksi	ISO 6721-2
Charpy Impact Unnotched	<= 12.0 J/cm <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	<= 57.1 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	ISO 179/1eU
	<= 15.0 J/cm <sup>2</sup> @Temperature 23.0 <sup>o</sup> C	<= 71.4 ft-lb/in <sup>2</sup> @Temperature 73.4 <sup>o</sup> F	ISO 179/1eU

Charpy Impact, Notched Mechanical Properties	1.60 J/cm <sup>2</sup> Metric	7.61 ft-lb/in <sup>2</sup> English	ISO 179/1eA Comments
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Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	82.0 Å°C	180 Å°F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	78.0 Å°C	172 Å°F	ISO 75-1/-2
Vicat Softening Point	82.0 Å°C	180 Å°F	VST/B/50; ISO 306
	91.0 Å°C	196 Å°F	VST/A/50; ISO 306
Flammability, UL94	HB @Diameter 1.60 mm	HB @Diameter 0.0630 in	IEC 60695-11-10
	HB @Diameter 3.18 mm	HB @Diameter 0.125 in	IEC 60695-11-10

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+16 ohm-cm	>= 1.00e+16 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+13 ohm	>= 1.00e+13 ohm	IEC 60093
Dielectric Constant	2.5 @Frequency 1.00e+6 Hz	2.5 @Frequency 1.00e+6 Hz	IEC 60250
	2.5 @Frequency 100 Hz	2.5 @Frequency 100 Hz	IEC 60250
Dielectric Strength	160 kV/mm	4060 kV/in	K20/P50; IEC 60243-1

Processing Properties	Metric	English	Comments
Melt Temperature	180 - 260 Å°C	356 - 500 Å°F	Injection Molding
Mold Temperature	10.0 - 60.0 Å°C	50.0 - 140 Å°F	Injection Molding

Descriptive Properties	Value	Comments
Color	Natural	
Commercial Status	Europe	
Primary Processing Technique	Injection Molding and Extrusion	
Surface Gloss	70	Skalenteile

## **Contact Songhan Plastic Technology Co.,Ltd.**

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