

## SABIC Innovative Plastics ULTEM CRS5011 PEI (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

Transparent, Enhanced flow Polyetherimide copolymer (Tg 225C) with enhanced chemical resistance to strong acids, bases, aromatics, and ketones. Resin is RoHS compliant. UL94 V0 listing.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-ULTEM-CRS5011-PEI-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-ULTEM-CRS5011-PEI-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Density	1.28 g/cc	0.0462 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.200 %	0.200 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	1.2 %	1.2 %	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on Tensile Bar; SABIC Method
Melt Index of Compound	20 g/10 min @Load 5.00 kg, Temperature 360 <sup>o</sup> C	20 g/10 min @Load 11.0 lb, Temperature 680 <sup>o</sup> F	MVR [cm <sup>3</sup> /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	85.0 MPa	12300 psi	50 mm/min; ISO 527
Tensile Strength, Yield	100 MPa	14500 psi	50 mm/min; ISO 527
Elongation at Break	50 %	50 %	50 mm/min; ISO 527
Elongation at Yield	8.0 %	8.0 %	50 mm/min; ISO 527
Tensile Modulus	2.90 GPa	421 ksi	1 mm/min; ISO 527
Flexural Yield Strength	110 MPa	16000 psi	2 mm/min; ISO 178
Flexural Modulus	2.90 GPa	421 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	5.00 kJ/m <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	2.38 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	80*10*4; ISO 180/1A

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	55.0 <sup>o</sup> µm/m- <sup>o</sup> C @Temperature 23.0 -	30.6 <sup>o</sup> µin/in- <sup>o</sup> F @Temperature 73.4 -	ISO 11359-2

Thermal Properties	150 °C Metric	302 °F English	Comments
CTE, linear, Transverse to Flow	55.0 Åµm/m-Å°C @Temperature 23.0 - 150 Å°C	30.6 Åµin/in-Å°F @Temperature 73.4 - 302 Å°F	ISO 11359-2
Deflection Temperature at 0.46 MPa (66 psi)	210 Å°C	410 Å°F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	200 Å°C	392 Å°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	215 Å°C	419 Å°F	Rate B/50; ISO 306
	215 Å°C	419 Å°F	Rate B/120; ISO 306
	220 Å°C	428 Å°F	Rate A/50; ISO 306
Glass Transition Temp, Tg	225 Å°C	437 Å°F	
Flammability, UL94	V-0 @Thickness 1.60 mm	V-0 @Thickness 0.0630 in	UL 94 by SABIC-IP
Oxygen Index	49 %	49 %	ISO 4589
Glow Wire Test	960 Å°C @Thickness 3.20 mm	1760 Å°F @Thickness 0.126 in	IEC 60695-2-12

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.50e+15 ohm-cm	2.50e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant	3.2 @Frequency 50.0 - 60.0 Hz	3.2 @Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	18.1 kV/mm @Thickness 3.20 mm	460 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
Dissipation Factor	0.0021 @Frequency 50.0 - 60.0 Hz	0.0021 @Frequency 50.0 - 60.0 Hz	IEC 60250
Comparative Tracking Index	>= 100 V	>= 100 V	IEC 60112
	150 V	150 V	IEC 60112

Electrical Properties	Metric	English	Comments
Descriptive Properties		Value	Comments
Ball Pressure Test, 125Å°C +/- 2Å°C		PASSES	IEC 60695-10-2

## Contact Songhan Plastic Technology Co.,Ltd.

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