

## SABIC Innovative Plastics ULTEM CRS5311 PEI (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

30% Glass fiber filled, enhanced flow Polyetherimide copolymer (Tg 225C) with enhanced chemical resistance to strong acids, bases, aromatics, and ketones. Resin is RoHS compliant. UL94 V0 and 5VA listing.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-ULTEM-CRS5311-PEI-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-ULTEM-CRS5311-PEI-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Density	1.52 g/cc	0.0549 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.150 %	0.150 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.90 %	0.90 %	ISO 62
Linear Mold Shrinkage, Flow	0.0020 - 0.0040 cm/cm	0.0020 - 0.0040 in/in	on Tensile Bar; SABIC Method
Melt Index of Compound	7.0 g/10 min @Load 5.00 kg, Temperature 360 <sup>o</sup> C	7.0 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
Hardness, H358/30	165 MPa	23900 psi	ISO 2039-1
Tensile Strength at Break	160 MPa	23200 psi	5 mm/min; ISO 527
Elongation at Break	2.0 %	2.0 %	5 mm/min; ISO 527
Tensile Modulus	10.0 GPa	1450 ksi	1 mm/min; ISO 527
Flexural Strength	210 MPa	30500 psi	2 mm/min; ISO 178
Flexural Modulus	8.20 GPa	1190 ksi	2 mm/min; ISO 178
Izod Impact, Unnotched (ISO)	35.0 kJ/m <sup>2</sup>	16.7 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	35.0 kJ/m <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	16.7 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	80*10*4; ISO 180/1U

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 $\mu$ m/m- <sup>o</sup> C	11.1 $\mu$ in/in- <sup>o</sup> F	ISO 11359-2
	@Temperature 23.0 - 150 <sup>o</sup> C	@Temperature 73.4 - 302 <sup>o</sup> F	
	70.0 $\mu$ m/m- <sup>o</sup> C	38.9 $\mu$ in/in- <sup>o</sup> F	

Thermal Properties	Metric @ Temperature 23.0 - 150 Â°C	English @ Temperature 73.4 - 302 Â°F	Comments ISO 11358-2
Thermal Conductivity	0.330 W/m-K	2.29 BTU-in/hr-ftÂ²- Â°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	215 Â°C	419 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	215 Â°C	419 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	220 Â°C	428 Â°F	Rate B/120; ISO 306
	228 Â°C	442 Â°F	Rate A/50; ISO 306
Glass Transition Temp, Tg	225 Â°C	437 Â°F	
UL RTI, Electrical	105 Â°C	221 Â°F	UL 746B
UL RTI, Mechanical with Impact	105 Â°C	221 Â°F	UL 746B
UL RTI, Mechanical without Impact	105 Â°C	221 Â°F	UL 746B
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	UL 94
	5VA @Thickness 1.50 mm	5VA @Thickness 0.0591 in	UL 94
Glow Wire Test	960 Â°C @Thickness 3.20 mm	1760 Â°F @Thickness 0.126 in	IEC 60695-2-12

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant	3.1 @Frequency 1.00e+6 Hz	3.1 @Frequency 1.00e+6 Hz	IEC 60250
	3.2 @Frequency 50.0 - 60.0 Hz	3.2 @Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	18.0 kV/mm @Thickness 3.20 mm	457 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
Dissipation Factor	0.0020	0.0020	IEC 60250

Electrical Properties	@Frequency 50.0 - 60.0 Metric Hz	@Frequency 50.0 - 60.0 English Hz	Comments
	0.0030	0.0030	
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	>= 100 V	>= 100 V	IEC 60112
	150 V	150 V	IEC 60112

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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