

## SABIC Innovative Plastics ULTEM 2310F PEI (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

30% Glass fiber filled, enhanced flow Polyetherimide (Tg 217C). Resin is RoHS compliant. UL94 V0 listing. US FDA and European Food Contact approved. Effective June, 2007 this grade will no longer be supported with biocompatibility information and should not be used for medical applications which require biocompatibility. Alternative grade HU2310.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-ULTEM-2310F-PEI-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-ULTEM-2310F-PEI-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Density	1.51 g/cc	0.0546 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.500 %	0.500 %	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	8.0 g/10 min @Load 5.00 kg, Temperature 360 <sup>o</sup> C	8.0 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	165 MPa	23900 psi	5 mm/min; ISO 527
Elongation at Break	2.0 %	2.0 %	5 mm/min; ISO 527
Tensile Modulus	9.50 GPa	1380 ksi	1 mm/min; ISO 527
Flexural Strength	225 MPa	32600 psi	2 mm/min; ISO 178
Flexural Modulus	8.50 GPa	1230 ksi	2 mm/min; ISO 178
Izod Impact, Unnotched (ISO)	40.0 kJ/m <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1U
	40.0 kJ/m <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	19.0 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	80*10*4; ISO 180/1U
Charpy Impact Unnotched	4.00 J/cm <sup>2</sup>	19.0 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	4.00 J/cm <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	19.0 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	Edgew 80*10*4 sp=62mm; ISO 179/1eU

Mechanical Properties	Metric	English	Comments
Taber Abrasion, mg/1000 Cycles	20	20	CS-17, 1 kg; SABIC Method

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	20.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	11.1 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ISO 11359-2
	@Temperature 23.0 - 150 $\text{Å}^\circ\text{C}$	@Temperature 73.4 - 302 $\text{Å}^\circ\text{F}$	
CTE, linear, Transverse to Flow	60.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	33.3 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	ISO 11359-2
	@Temperature 23.0 - 150 $\text{Å}^\circ\text{C}$	@Temperature 73.4 - 302 $\text{Å}^\circ\text{F}$	
Thermal Conductivity	0.330 W/m-K	2.29 BTU-in/hr- $\text{ft}\cdot\text{Å}^2\cdot\text{Å}^\circ\text{F}$	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	215 $\text{Å}^\circ\text{C}$	419 $\text{Å}^\circ\text{F}$	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	210 $\text{Å}^\circ\text{C}$	410 $\text{Å}^\circ\text{F}$	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	213 $\text{Å}^\circ\text{C}$	415 $\text{Å}^\circ\text{F}$	Rate B/50; ISO 306
	220 $\text{Å}^\circ\text{C}$	428 $\text{Å}^\circ\text{F}$	Rate B/120; ISO 306
	225 $\text{Å}^\circ\text{C}$	437 $\text{Å}^\circ\text{F}$	Rate A/50; ISO 306
Glass Transition Temp, Tg	217 $\text{Å}^\circ\text{C}$	423 $\text{Å}^\circ\text{F}$	
Oxygen Index	48 %	48 %	ISO 4589
Glow Wire Test	960 $\text{Å}^\circ\text{C}$	1760 $\text{Å}^\circ\text{F}$	IEC 60695-2-12
	@Thickness 3.20 mm	@Thickness 0.126 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	$\geq 1.00\text{e}+15$ ohm	$\geq 1.00\text{e}+15$ ohm	ROA; IEC 60093
Dielectric Constant	3.3	3.3	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	3.4	3.4	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	15.0 kV/mm	381 kV/in	in oil; IEC 60243-1
	@Thickness 3.20 mm	@Thickness 0.126 in	

Electrical Properties	Metric	English	Comments
	36.0 kV/mm	889 kV/in	in oil; IEC 60243-1
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	35.0 kV/mm	889 kV/in	in oil; IEC 60243-1
	@Thickness 0.800 mm	@Thickness 0.0315 in	
Dissipation Factor	0.0016	0.0016	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.0023	0.0023	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.0053	0.0053	IEC 60250
	@Frequency 2.45e+9 Hz	@Frequency 2.45e+9 Hz	
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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