

SABIC Innovative Plastics Ultem HU1000E PEI (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

Material Notes:

Transparent, standard flow Polyetherimide (Tg 217C) with internal mold release. ECO Conforming. For medical devices and pharmaceutical applications. Healthcare management of change, biocompatible (ISO 10993 or USP Class VI), food contact compliant. EtO and steam sterilizable. This data was supplied by SABIC-IP for the Europe-Africa-Middle East region.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Ultem-HU1000E-PEI-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.27 g/cc	1.27 g/cc	ASTM D 792
Density	1.27 g/cc	0.0459 lb/in ³	ISO 1183
Moisture Absorption at Equilibrium	0.70 %	0.70 %	23 ^o C / 50% RH; ISO 62
Water Absorption at Saturation	1.25 % @Temperature 23.0 ^o C	1.25 % @Temperature 73.4 ^o F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	12 g/10 min @Load 6.60 kg, Temperature 337 ^o C	12 g/10 min @Load 14.6 lb, Temperature 639 ^o F	ASTM D 1238
	17 g/10 min @Load 5.00 kg, Temperature 360 ^o C	17 g/10 min @Load 11.0 lb, Temperature 680 ^o F	[cm ³ /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	85.0 MPa	12300 psi	Type I, 5 mm/min; ASTM D 638
	85.0 MPa	12300 psi	5 mm/min; ISO 527
Tensile Strength, Yield	105 MPa	15200 psi	5 mm/min; ISO 527
	110 MPa	16000 psi	Type I, 5 mm/min; ASTM D 638
Elongation at Break	60 %	60 %	Type I, 5 mm/min; ASTM D 638
	60 %	60 %	5 mm/min; ISO 527
Elongation at Yield	6.0 %	6.0 %	5 mm/min; ISO 527

Mechanical Properties	7.0% Metric	7.0% English	Type I, 5 mm/min; ASTM D 638 Comments
Tensile Modulus	3.20 GPa	464 ksi	1 mm/min; ISO 527
	3.59 GPa	521 ksi	5 mm/min; ASTM D 638
Flexural Yield Strength	160 MPa	23200 psi	2 mm/min; ISO 178
	173 MPa	25100 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	3.30 GPa	479 ksi	2 mm/min; ISO 178
	3.43 GPa	497 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	0.530 J/cm @Temperature 23.0 °C	0.993 ft-lb/in @Temperature 73.4 °F	ASTM D 256
	0.550 J/cm @Temperature -30.0 °C	1.03 ft-lb/in @Temperature -22.0 °F	ASTM D 256
Izod Impact, Unnotched	13.35 J/cm @Temperature 23.0 °C	25.01 ft-lb/in @Temperature 73.4 °F	ASTM D 4812
	6.00 kJ/m ² @Temperature 23.0 °C	2.86 ft-lb/in ² @Temperature 73.4 °F	80*10*4; ISO 180/1A
Izod Impact, Notched (ISO)	6.00 kJ/m ² @Temperature -30.0 °C	2.86 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	80*10*4; ISO 180/1U
Izod Impact, Unnotched (ISO)	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	80*10*4; ISO 180/1U
	NB @Temperature 23.0 °C	NB @Temperature 73.4 °F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
Charpy Impact Unnotched	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	0.400 J/cm ²		

Mechanical Properties	Metric @Temperature 23.0 Â°C	English 1.90 ft-lb/inÂ² @Temperature 73.4 Â°F	Comments V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.400 J/cmÂ² @Temperature -30.0 Â°C	1.90 ft-lb/inÂ² @Temperature -22.0 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	38.0 J @Temperature 23.0 Â°C	28.0 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	55.0 Âµm/m-Â°C	30.6 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 150 Â°C	@Temperature -40.0 - 302 Â°F	
	55.0 Âµm/m-Â°C	30.6 Âµin/in-Â°F	ISO 11359-2
	@Temperature 23.0 - 150 Â°C	@Temperature 73.4 - 302 Â°F	
CTE, linear, Transverse to Flow	55.0 Âµm/m-Â°C	30.6 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 150 Â°C	@Temperature -40.0 - 302 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	207 Â°C	405 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	188 Â°C	370 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	190 Â°C	374 Â°F	
	199 Â°C	390 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	201 Â°C	394 Â°F	unannealed; ASTM D 648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Vicat Softening Point	211 Â°C	412 Â°F	Rate B/50; ISO 306
	212 Â°C	414 Â°F	Rate B/120; ISO 306
	219 Â°C	426 Â°F	Rate B/50; ASTM D 1525

Glass Transition Temp, Tg Thermal Properties	217 Å°C Metric	423 Å°F English	Comments
Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China