

## SABIC Innovative Plastics Ultem ATX100F PEI (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

Higher impact, high flow Polyetherimide blend. ECO Conforming, UL94 HB Listing. US FDA Food Contact Compliant. 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-ATX100F-PEI-Europe-Africa-Middle-East.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Ultem-ATX100F-PEI-Europe-Africa-Middle-East.php)

Physical Properties	Metric	English	Comments
Density	1.21 g/cc	0.0437 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.25 %	0.25 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.50 % @Temperature 23.0 <sup>o</sup> C	0.50 % @Temperature 73.4 <sup>o</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on tensile bar; SABIC Method
Melt Flow	35 g/10 min @Load 5.00 kg, Temperature 340 <sup>o</sup> C	35 g/10 min @Load 11.0 lb, Temperature 644 <sup>o</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	95.0 MPa	13800 psi	ISO 2039-1
Tensile Strength at Break	55.0 MPa	7980 psi	50 mm/min; ISO 527
Tensile Strength, Yield	65.0 MPa	9430 psi	50 mm/min; ISO 527
Elongation at Break	30 %	30 %	50 mm/min; ISO 527
Elongation at Yield	7.0 %	7.0 %	50 mm/min; ISO 527
Tensile Modulus	2.35 GPa	341 ksi	1 mm/min; ISO 527
Flexural Yield Strength	90.0 MPa	13100 psi	2 mm/min; ISO 178
Flexural Modulus	2.40 GPa	348 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	13.0 kJ/m <sup>2</sup> @Temperature -30.0 <sup>o</sup> C	6.19 ft-lb/in <sup>2</sup> @Temperature -22.0 <sup>o</sup> F	80*10*4; ISO 180/1A
	15.0 kJ/m <sup>2</sup> @Temperature 23.0 <sup>o</sup> C	7.14 ft-lb/in <sup>2</sup> @Temperature 73.4 <sup>o</sup> F	80*10*4; ISO 180/1A

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.90 J/cmÂ²  @Temperature 23.0 Â°C	9.04 ft-lb/inÂ²  @Temperature 73.4 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	60.0 Âµm/m-Â°C	33.3 Âµin/in-Â°F	ISO 11359-2
	@Temperature 23.0 - 150 Â°C	@Temperature 73.4 - 302 Â°F	
CTE, linear, Transverse to Flow	60.0 Âµm/m-Â°C	33.3 Âµin/in-Â°F	ISO 11359-2
	@Temperature 23.0 - 150 Â°C	@Temperature 73.4 - 302 Â°F	
Thermal Conductivity	0.240 W/m-K	1.67 BTU-in/hr-ftÂ²- Â°F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	160 Â°C	320 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Be
Deflection Temperature at 1.8 MPa (264 psi)	150 Â°C	302 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
Vicat Softening Point	170 Â°C	338 Â°F	Rate B/50; ISO 306
	175 Â°C	347 Â°F	Rate B/120; ISO 306
	180 Â°C	356 Â°F	Rate A/50; ISO 306
Flammability, UL94	HB	HB	UL 94 by SABIC-IP
	@Thickness 0.750 mm	@Thickness 0.0295 in	

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	2.8	2.8	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	2.9	2.9	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	22.0 kV/mm	559 kV/in	

Dielectric Strength Electrical Properties	Metric @ Thickness 3.20 mm	English @ Thickness 0.126 in	In oil: IEC 60243-1 Comments
Dissipation Factor	0.0010 @Frequency 50.0 - 60.0 Hz	0.0010 @Frequency 50.0 - 60.0 Hz	IEC 60250
	0.013 @Frequency 1.00e+6 Hz	0.013 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	175 V	175 V	IEC 60112

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

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