

## SABIC Innovative Plastics Ultem ATX202R PEI+PCE

Category : Polymer , Thermoplastic , Polyetherimide (PEI) , Polyetherimide (PEI) + PCE

### Material Notes:

20% Glass fiber filled, high flow Polyetherimide blend with internal mold release. ECO Conforming, UL94 V0 and 5VA listing. This data was supplied by SABIC-IP for the Americas region.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Ultem-ATX202R-PEIPCE.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Ultem-ATX202R-PEIPCE.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.43 g/cc	1.43 g/cc	ASTM D 792
Density	1.43 g/cc	0.0517 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	0.67 % @Temperature 23.0 <sup>o</sup> C	0.67 % @Temperature 73.4 <sup>o</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.0030 - 0.0050 cm/cm	0.0030 - 0.0050 in/in	on tensile bar; SABIC Method
	0.0030 - 0.0050 cm/cm @Thickness 3.20 mm	0.0030 - 0.0050 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.0040 - 0.0060 cm/cm	0.0040 - 0.0060 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	22 g/10 min @Load 5.00 kg, Temperature 360 <sup>o</sup> C	22 g/10 min @Load 11.0 lb, Temperature 680 <sup>o</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133
	23 g/10 min @Load 6.60 kg, Temperature 337 <sup>o</sup> C	23 g/10 min @Load 14.6 lb, Temperature 639 <sup>o</sup> F	ASTM D 1238

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	134 MPa	19400 psi	5 mm/min; ISO 527
	136 MPa	19700 psi	Type I, 5 mm/min; ASTM D 638
Tensile Strength, Yield	134 MPa	19400 psi	5 mm/min; ISO 527
	139 MPa	20200 psi	Type I, 5 mm/min; ASTM D 638
Elongation at Break	3.0 %	3.0 %	Type I, 5 mm/min; ASTM D 638

Mechanical Properties	3.4% Metric	3.4% English	5 mm/min; ISO 527 Comments
Elongation at Yield	2.7 %	2.7 %	5 mm/min; ISO 527
	2.9 %	2.9 %	Type I, 5 mm/min; ASTM D 638
Tensile Modulus	7.64 GPa	1110 ksi	5 mm/min; ASTM D 638
	7.71 GPa	1120 ksi	1 mm/min; ISO 527
Flexural Yield Strength	215 MPa	31200 psi	2 mm/min; ISO 178
	217 MPa	31500 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	6.40 GPa	928 ksi	2 mm/min; ISO 178
	6.93 GPa	1010 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	0.750 J/cm @Temperature 23.0 Â°C	1.41 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
Izod Impact, Unnotched	7.47 J/cm @Temperature 23.0 Â°C	14.0 ft-lb/in @Temperature 73.4 Â°F	ASTM D 4812
Izod Impact, Notched (ISO)	6.00 kJ/mÂ² @Temperature 23.0 Â°C	2.86 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
	6.00 kJ/mÂ² @Temperature -30.0 Â°C	2.86 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	39.0 kJ/mÂ² @Temperature -30.0 Â°C	18.6 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1U
	42.0 kJ/mÂ² @Temperature 23.0 Â°C	20.0 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1U
Charpy Impact Unnotched	3.90 J/cmÂ² @Temperature 23.0 Â°C	18.6 ft-lb/inÂ² @Temperature 73.4 Â°F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	4.20 J/cmÂ² @Temperature -30.0 Â°C	20.0 ft-lb/inÂ² @Temperature -22.0 Â°F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	0.500 J/cmÂ²		

Mechanical Properties	Metric	English	Comments
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	0.500 J/cmÂ² @Temperature -30.0 Â°C	2.38 ft-lb/inÂ² @Temperature -22.0 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	15.0 J @Temperature 23.0 Â°C	11.1 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 Âµm/m-Â°C	8.33 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 150 Â°C	@Temperature -40.0 - 302 Â°F	
	15.0 Âµm/m-Â°C	8.33 Âµin/in-Â°F	ISO 11359-2
	@Temperature 23.0 - 150 Â°C	@Temperature 73.4 - 302 Â°F	
CTE, linear, Transverse to Flow	47.0 Âµm/m-Â°C	26.1 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 150 Â°C	@Temperature -40.0 - 302 Â°F	
	47.0 Âµm/m-Â°C	26.1 Âµin/in-Â°F	ISO 11359-2
	@Temperature 23.0 - 150 Â°C	@Temperature 73.4 - 302 Â°F	
Deflection Temperature at 0.46 MPa (66 psi)	196 Â°C	385 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Be
	199 Â°C @Thickness 3.20 mm	390 Â°F @Thickness 0.126 in	unannealed; ASTM D 648
	204 Â°C @Thickness 6.40 mm	399 Â°F @Thickness 0.252 in	unannealed; ASTM D 648
Deflection Temperature at 1.8 MPa (264 psi)	188 Â°C	370 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	188 Â°C	370 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/ Af
	196 Â°C @Thickness 3.20 mm	385 Â°F @Thickness 0.126 in	unannealed; ASTM D 648
	198 Â°C @Thickness 6.40 mm	388 Â°F @Thickness 0.252 in	unannealed; ASTM D 648
Vicat Softening Point	208 Â°C	406 Â°F	Rate B/50; ISO 306

Thermal Properties	Metric	English	Comments
	205 Å°C	400 Å°F	Rate B/50; ISO 306
	210 Å°C	410 Å°F	Rate B/50; ASTM D 1525
Flammability, UL94	V-0	V-0	UL 94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	5VA	5VA	UL 94
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.40e+16 ohm-cm	1.40e+16 ohm-cm	IEC 60093
Surface Resistance	1.80e+13 ohm	1.80e+13 ohm	ROA; IEC 60093
Dielectric Strength	23.0 kV/mm	584 kV/in	in oil; IEC 60243-1
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Dissipation Factor	0.0023	0.0023	IEC 60250
	@Frequency 1000 Hz	@Frequency 1000 Hz	
	0.0031	0.0031	IEC 60250
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
	0.0082	0.0082	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	125 V	125 V	IEC 60112
	>= 125 V	>= 125 V	

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

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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