

## SABIC Innovative Plastics ULTEM AUT210 PEI (Asia Pacific)

Category : Polymer , Thermoplastic , Polyetherimide (PEI)

### Material Notes:

Transparent Polyetherimide (Tg 227 degC). Very low outgassing and plateout, for automotive lighting applications where highly metallized, reflective surfaces are required. Haze onset temperature of 212 degC (SABIC IP method). Resin is subject to U.S. Commerce Control Laws (15CFR Chapter VII, Part 774).

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-ULTEM-AUT210-PEI-Asia-Pacific.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-ULTEM-AUT210-PEI-Asia-Pacific.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.29 g/cc	1.29 g/cc	ASTM D792
Density	1.29 g/cc	0.0466 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption	0.200 %	0.200 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	1.03 %	1.03 %	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	11 g/10 min @Load 6.60 kg, Temperature 337 <sup>o</sup> C	11 g/10 min @Load 14.6 lb, Temperature 639 <sup>o</sup> F	ASTM D1238
Melt Index of Compound	16 g/10 min @Load 5.00 kg, Temperature 360 <sup>o</sup> C	16 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
Tensile Strength at Break	88.0 MPa	12800 psi	Type I, 5 mm/min; ASTM D638
	88.0 MPa	12800 psi	5 mm/min; ISO 527
Tensile Strength, Yield	103 MPa	14900 psi	5 mm/min; ISO 527
	105 MPa	15200 psi	Type I, 5 mm/min; ASTM D638
Elongation at Break	54 %	54 %	5 mm/min; ISO 527
	75 %	75 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	7.0 %	7.0 %	5 mm/min; ISO 527
	8.0 %	8.0 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	3.32 GPa	482 ksi	1 mm/min; ISO 527

Mechanical Properties	Metric 3.33 GPa	English 483 ksi	Comments 5 mm/min; ASTM D538
Flexural Yield Strength	170 MPa	24700 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	3.14 GPa	455 ksi	2 mm/min; ISO 178
	3.33 GPa	483 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	0.370 J/cm	0.693 ft-lb/in	ASTM D256
	0.380 J/cm	0.712 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched	24.4 J/cm	45.7 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	5.00 kJ/m <sup>2</sup>	2.38 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	4.00 kJ/m <sup>2</sup>	1.90 ft-lb/in <sup>2</sup>	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	NB	NB	80*10*4; ISO 180/1U
	NB	NB	80*10*4; ISO 180/1U
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	1.60 J/cm <sup>2</sup>	7.61 ft-lb/in <sup>2</sup>	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	33.0 J	24.3 ft-lb	ASTM D3763
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	50.0 μm/m-°C	27.8 μin/in-°F	ASTM E 831
	@Temperature -40.0 - 150 °C	@Temperature -40.0 - 302 °F	
	50.0 μm/m-°C	27.8 μin/in-°F	ISO 11359-2
	@Temperature 23.0 - 150 °C	@Temperature 73.4 - 302 °F	
CTE, linear, Transverse to Flow	50.0 μm/m-°C	27.8 μin/in-°F	ASTM E 831
	@Temperature -40.0 - 150 °C	@Temperature -40.0 - 302 °F	
	50.0 μm/m-°C	27.8 μin/in-°F	

Thermal Properties	Metric @ Temperature 23.0 - 150 Â°C	English @ Temperature 73.4 - 302 Â°F	ISO 11359-2 Comments
Deflection Temperature at 0.46 MPa (66 psi)	215 Â°C @Thickness 3.20 mm	419 Â°F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	196 Â°C	385 Â°F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	201 Â°C @Thickness 3.20 mm	394 Â°F @Thickness 0.126 in	unannealed; ASTM D648
	211 Â°C @Thickness 6.40 mm	412 Â°F @Thickness 0.252 in	unannealed; ASTM D648
Vicat Softening Point	221 Â°C	430 Â°F	Rate B/50; ISO 306
	222 Â°C	432 Â°F	Rate B/50; ASTM D1525
Glass Transition Temp, Tg	227 Â°C	441 Â°F	

Optical Properties	Metric	English	Comments
Transmission, Visible	90 %	90 %	transparent; thickness not quantified

Descriptive Properties	Value	Comments
Metallized Haze Onset	212Â°C	SABIC Method

## Contact Songhan Plastic Technology Co.,Ltd.

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