

## SABIC Innovative Plastics Valox® 175 PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

Unreinforced, neat PBT resin for compounding only. Natural Color Only, Not intended for injection molding. 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-Valox-175-PBT.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-175-PBT.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.32 g/cc	1.32 g/cc	ASTM D 792
Density	1.31 g/cc	0.0473 lb/in <sup>3</sup>	ISO 1183
Moisture Absorption at Equilibrium	0.070 %	0.070 %	23 <sup>o</sup> C / 50% RH; ISO 62
Water Absorption at Saturation	0.080 % @Temperature 23.0 <sup>o</sup> C	0.080 % @Temperature 73.4 <sup>o</sup> F	ISO 62
Linear Mold Shrinkage, Flow	0.015 - 0.018 cm/cm @Thickness 3.20 mm	0.015 - 0.018 in/in @Thickness 0.126 in	SABIC Method
Linear Mold Shrinkage, Transverse	0.016 - 0.020 cm/cm @Thickness 3.20 mm	0.016 - 0.020 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	127 g/10 min @Load 1.20 kg, Temperature 250 <sup>o</sup> C	127 g/10 min @Load 2.65 lb, Temperature 482 <sup>o</sup> F	ASTM D 1238
	127 g/10 min @Load 1.20 kg, Temperature 250 <sup>o</sup> C	127 g/10 min @Load 2.65 lb, Temperature 482 <sup>o</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133
	231 g/10 min @Load 2.16 kg, Temperature 250 <sup>o</sup> C	231 g/10 min @Load 4.76 lb, Temperature 482 <sup>o</sup> F	[cm <sup>3</sup> /10 min] Melt Volume Rate; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	45.0 MPa	6530 psi	50 mm/min; ISO 527
	50.0 MPa	7250 psi	Type I, 50 mm/min; ASTM D 638
Tensile Strength, Yield	45.0 MPa	6530 psi	50 mm/min; ISO 527
	50.0 MPa	7250 psi	Type I, 50 mm/min; ASTM D 638

Elongation at Break Mechanical Properties	1.8 % Metric	1.8 % English	50 mm/min; ISO 527 Comments
	2.0 %	2.0 %	Type I, 50 mm/min; ASTM D 638
Elongation at Yield	1.8 %	1.8 %	50 mm/min; ISO 527
	2.0 %	2.0 %	Type I, 50 mm/min; ASTM D 638
Tensile Modulus	2.50 GPa	363 ksi	5 mm/min; ASTM D 638
	2.60 GPa	377 ksi	1 mm/min; ISO 527
Flexural Yield Strength	81.0 MPa	11700 psi	2 mm/min; ISO 178
	84.0 MPa	12200 psi	1.3 mm/min, 50 mm span; ASTM D 790
Flexural Modulus	2.29 GPa	332 ksi	2 mm/min; ISO 178
	2.39 GPa	347 ksi	1.3 mm/min, 50 mm span; ASTM D 790
Izod Impact, Notched	0.280 J/cm @Temperature 23.0 Â°C	0.525 ft-lb/in @Temperature 73.4 Â°F	ASTM D 256
Izod Impact, Unnotched	8.90 J/cm @Temperature 23.0 Â°C	16.7 ft-lb/in @Temperature 73.4 Â°F	ASTM D 4812
Izod Impact, Notched (ISO)	2.00 kJ/mÂ² @Temperature 23.0 Â°C	0.952 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1A
Izod Impact, Unnotched (ISO)	35.0 kJ/mÂ² @Temperature 23.0 Â°C	16.7 ft-lb/inÂ² @Temperature 73.4 Â°F	80*10*4; ISO 180/1U
Charpy Impact, Notched	0.700 J/cmÂ² @Temperature 23.0 Â°C	3.33 ft-lb/inÂ² @Temperature 73.4 Â°F	V-notch Edgew 80*10*4 sp=62mm; ISO 179/1eA
Impact Test	5.00 J @Temperature 23.0 Â°C	3.69 ft-lb @Temperature 73.4 Â°F	Instrumented Impact Total Energy; ASTM D 3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	85.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	47.2 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ISO 11359-2
	85.0 Âµm/m-Â°C	47.2 Âµin/in-Â°F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	113 Â°C	235 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	104 Â°C	219 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	51.0 Â°C	124 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	48.0 Â°C	118 Â°F	unannealed; ASTM D 648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	177 Â°C	351 Â°F	Rate B/120; ISO 306
	178 Â°C	352 Â°F	Rate B/50; ISO 306

## 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