

SABIC Innovative Plastics Valox® 815F PBT+PET (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , PBT + PET Blend, Glass Filled , Polyethylene Terephthalate (PET)

Material Notes:

PBT+PET, 15% Glass, Mold Release, Heat Stabilized, For food contact applications

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-815F-PBTPET-Europe-Africa-Middle-East.php

| Physical Properties | Metric | English | Comments |
|--------------------------------|--|--|---|
| Specific Gravity | 1.42 g/cc | 1.42 g/cc | ASTM D792 |
| Density | 1.42 g/cc | 0.0513 lb/in ³ | ISO 1183 |
| Filler Content | 15 % | 15 % | ASTM D229 |
| Moisture Absorption | 0.0600 % | 0.0600 % | 23Â°C / 50% RH; ISO 62 |
| Water Absorption at Saturation | 0.26 % | 0.26 % | ISO 62 |
| Viscosity | 160000 cP | 160000 cP | Melt Viscosity, 260Â°C, 1500 sec-1; ISO 11443 |
| Linear Mold Shrinkage, Flow | 0.0040 - 0.010 cm/cm @Thickness 3.20 mm | 0.0040 - 0.010 in/in @Thickness 0.126 in | SABIC Method |
| Melt Flow | 16 g/10 min @Load 1.20 kg, Temperature 266 Â°C | 16 g/10 min @Load 2.65 lb, Temperature 511 Â°F | ASTM D1238 |
| | 70 g/10 min @Load 5.00 kg, Temperature 266 Â°C | 70 g/10 min @Load 11.0 lb, Temperature 511 Â°F | ASTM D1238 |
| | 70 g/10 min @Load 5.00 kg, Temperature 265 Â°C | 70 g/10 min @Load 11.0 lb, Temperature 509 Â°F | ASTM D1238 |
| Melt Index of Compound | 12 g/10 min @Load 1.20 kg, Temperature 265 Â°C | 12 g/10 min @Load 2.65 lb, Temperature 509 Â°F | MVR [cm ³ /10 min]; ISO 1133 |
| | 22 g/10 min @Load 5.00 kg, Temperature 250 Â°C | 22 g/10 min @Load 11.0 lb, Temperature 482 Â°F | MVR [cm ³ /10 min]; ISO 1133 |
| | 50 g/10 min @Load 5.00 kg, Temperature 265 Â°C | 50 g/10 min @Load 11.0 lb, Temperature 509 Â°F | MVR [cm ³ /10 min]; ISO 1133 |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|--------------------------|----------------------------|---|
| Hardness, Rockwell R | 121 | 121 | ISO 2039-2 |
| Hardness, H358/30 | 195 MPa | 28300 psi | ISO 2039-1 |
| Tensile Strength at Break | 90.0 MPa | 13100 psi | Type I, 5 mm/min; ASTM D638 |
| | 90.0 MPa | 13100 psi | 5 mm/min; ISO 527 |
| Tensile Strength, Yield | 90.0 MPa | 13100 psi | Type I, 5 mm/min; ASTM D638 |
| | 90.0 MPa | 13100 psi | 5 mm/min; ISO 527 |
| Elongation at Break | 3.0 % | 3.0 % | Type I, 5 mm/min; ASTM D638 |
| | 3.0 % | 3.0 % | 5 mm/min; ISO 527 |
| | 5.0 % | 5.0 % | Flexural Strain, break, 2 mm/min; ISO 178 |
| Elongation at Yield | 3.0 % | 3.0 % | Type I, 5 mm/min; ASTM D638 |
| | 3.0 % | 3.0 % | 5 mm/min; ISO 527 |
| Tensile Modulus | 5.50 GPa | 798 ksi | 5 mm/min; ASTM D638 |
| | 5.50 GPa | 798 ksi | 1 mm/min; ISO 527 |
| Flexural Strength | 130 MPa | 18900 psi | 2 mm/min; ISO 178 |
| Flexural Yield Strength | 145 MPa | 21000 psi | 2 mm/min; ISO 178 |
| Flexural Modulus | 4.50 GPa | 653 ksi | 1.3 mm/min, 50 mm span; ASTM D790 |
| | 5.10 GPa | 740 ksi | 2 mm/min; ISO 178 |
| Izod Impact, Notched | 0.390 J/cm | 0.731 ft-lb/in | ASTM D256 |
| | 0.390 J/cm | 0.731 ft-lb/in | ASTM D256 |
| | @Temperature 0.000 °C | @Temperature 32.0 °F | |
| | 0.390 J/cm | 0.731 ft-lb/in | ASTM D256 |
| | @Temperature -30.0 °C | @Temperature -22.0 °F | |
| Izod Impact, Unnotched | 3.00 J/cm | 5.62 ft-lb/in | ASTM D4812 |
| | 3.00 J/cm | 5.62 ft-lb/in | ASTM D4812 |
| | @Temperature -30.0 °C | @Temperature -22.0 °F | |
| Izod Impact, Notched (ISO) | 4.00 kJ/m ² | 1.90 ft-lb/in ² | 80*10*4; ISO 180/1A |

| Mechanical Properties | Metric | English | Comments |
|------------------------------|---------------------------|----------------------------|------------------------------------|
| | 4.00 kJ/m ² | 1.90 ft-lb/in ² | |
| | @Temperature 0.000 Â°C | @Temperature 32.0 Â°F | 80*10*4; ISO 180/1A |
| | 4.00 kJ/m ² | 1.90 ft-lb/in ² | |
| | @Temperature -30.0 Â°C | @Temperature -22.0 Â°F | 80*10*4; ISO 180/1A |
| Izod Impact, Unnotched (ISO) | 25.0 kJ/m ² | 11.9 ft-lb/in ² | 80*10*4; ISO 180/1U |
| | 25.0 kJ/m ² | 11.9 ft-lb/in ² | |
| | @Temperature -30.0 Â°C | @Temperature -22.0 Â°F | 80*10*4; ISO 180/1U |
| Charpy Impact Unnotched | 2.50 J/cm ² | 11.9 ft-lb/in ² | ISO 179/2C |
| | 2.50 J/cm ² | 11.9 ft-lb/in ² | |
| | @Temperature -30.0 Â°C | @Temperature -22.0 Â°F | ISO 179/2C |
| Charpy Impact, Notched | 0.400 J/cm ² | 1.90 ft-lb/in ² | ISO 179/2C |
| | 0.500 J/cm ² | 2.38 ft-lb/in ² | Edgew 80*10*4 sp=62mm; ISO 179/1eA |
| | 0.400 J/cm ² | 1.90 ft-lb/in ² | |
| | @Temperature -30.0 Â°C | @Temperature -22.0 Â°F | ISO 179/2C |
| Dart Drop, Total Energy | 6.00 J | 4.43 ft-lb | ASTM D3763 |
| | @Temperature 23.0 Â°C | @Temperature 73.4 Â°F | |

| Thermal Properties | Metric | English | Comments |
|---------------------------------|----------------------------------|---------------------------------|-------------|
| CTE, linear, Parallel to Flow | 45.0 Âµm/m-Â°C | 25.0 Âµin/in-Â°F | ASTM E 831 |
| | @Temperature -40.0 - 40.0 Â°C | @Temperature -40.0 - 104 Â°F | |
| | 55.0 Âµm/m-Â°C | 30.6 Âµin/in-Â°F | ISO 11359-2 |
| | @Temperature 23.0 - 80.0 Â°C | @Temperature 73.4 - 176 Â°F | |
| CTE, linear, Transverse to Flow | 54.0 Âµm/m-Â°C | 30.0 Âµin/in-Â°F | ASTM E 831 |
| | @Temperature -40.0 - 40.0 Â°C | @Temperature -40.0 - 104 Â°F | |
| | 85.0 Âµm/m-Â°C | 47.2 Âµin/in-Â°F | ISO 11359-2 |
| | @Temperature 23.0 - 80.0 Â°C | @Temperature 73.4 - 176 Â°F | |

| Thermal Properties | Metric | English | Comments |
|--|--------------------|---------------------|------------------------------------|
| Deflection Temperature at 0.46 MPa (66 psi) | 205 Â°C | 401 Â°F | Flatw 80*10*4 sp=64mm; ISO 75/Bf |
| | @Thickness 3.20 mm | @Thickness 0.126 in | unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa (264 psi) | 150 Â°C | 302 Â°F | Flatw 80*10*4 sp=64mm; ISO 75/Af |
| | 175 Â°C | 347 Â°F | Edgew 120*10*4 sp=100mm; ISO 75/Ae |
| | 150 Â°C | 302 Â°F | unannealed; ASTM D648 |
| | @Thickness 3.20 mm | @Thickness 0.126 in | |
| Vicat Softening Point | 195 Â°C | 383 Â°F | Rate B/120; ISO 306 |
| | 197 Â°C | 387 Â°F | Rate B/50; ISO 306 |
| | 197 Â°C | 387 Â°F | Rate B/50; ASTM D1525 |
| | 220 Â°C | 428 Â°F | Rate A/50; ISO 306 |
| | 220 Â°C | 428 Â°F | Rate A/50; ASTM D1525 |

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

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