

DuPont Performance Polymers Crastin® S650FR BK851 PBT (Unverified Data**)

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

Material Notes:

Crastin® S650FR is an unreinforced, black, flame retardant polybutylene terephthalate for injection molding. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Crastin-S650FR-BK851-PBT-nbspUnverified-Data.php

| Physical Properties | Metric | English | Comments |
|-----------------------------------|-----------------------------------|-------------------------------------|-----------|
| Density | 1.46 g/cc | 0.0527 lb/in ³ | ISO 1183 |
| Linear Mold Shrinkage, Flow | 0.018 cm/cm @Thickness 2.00 mm | 0.018 in/in @Thickness 0.0787 in | ISO 294-4 |
| Linear Mold Shrinkage, Transverse | 0.016 cm/cm @Thickness 2.00 mm | 0.016 in/in @Thickness 0.0787 in | ISO 294-4 |

| Mechanical Properties | Metric | English | Comments |
|-------------------------|--|---|------------------|
| Tensile Strength, Yield | 65.0 MPa @Temperature 23.0 °C | 9430 psi @Temperature 73.4 °F | ISO 527 |
| Elongation at Break | 7.2 % @Temperature 23.0 °C | 7.2 % @Temperature 73.4 °F | nominal; ISO 527 |
| | 9.0 % @Temperature 23.0 °C | 9.0 % @Temperature 73.4 °F | ISO 527 |
| Elongation at Yield | 4.6 % @Temperature 23.0 °C | 4.6 % @Temperature 73.4 °F | ISO 527 |
| Tensile Modulus | 3.00 GPa @Temperature 23.0 °C | 435 ksi @Temperature 73.4 °F | ISO 527 |
| Flexural Strength | 100 MPa @Temperature 23.0 °C | 14500 psi @Temperature 73.4 °F | ISO 178 |
| Charpy Impact Unnotched | 6.00 J/cm ² @Temperature 23.0 °C | 28.6 ft-lb/in ² @Temperature 73.4 °F | ISO 179/1eU |
| Charpy Impact, Notched | 0.340 J/cm ² @Temperature -30.0 °C | 1.62 ft-lb/in ² @Temperature -22.0 °F | ISO 179/1eA |

| Mechanical Properties | Metric /cm ² | English lb/in ² | Comments |
|-----------------------|-------------------------|----------------------------|--------------|
| | @Temperature 23.0 °C | @Temperature 73.4 °F | ISO 1135/1EA |

| Thermal Properties | Metric | English | Comments |
|---|-------------------------------|--------------------------------|--------------------------|
| Melting Point | 225 °C | 437 °F | 10°C/min; ISO 11357-1/-3 |
| Deflection Temperature at 0.46 MPa (66 psi) | 160 °C | 320 °F | ISO 75-1/-2 |
| Deflection Temperature at 1.8 MPa (264 psi) | 65.0 °C | 149 °F | ISO 75-1/-2 |
| UL RTI, Electrical | 130 °C @Thickness 0.750 mm | 266 °F @Thickness 0.0295 in | UL 746B |
| UL RTI, Mechanical with Impact | 130 °C @Thickness 0.750 mm | 266 °F @Thickness 0.0295 in | UL 746B |
| UL RTI, Mechanical without Impact | 130 °C @Thickness 0.750 mm | 266 °F @Thickness 0.0295 in | UL 746B |
| Flammability, UL94 | V-0 @Thickness 0.750 mm | V-0 @Thickness 0.0295 in | IEC 60695-11-10 |
| | V-0 @Thickness 1.50 mm | V-0 @Thickness 0.0591 in | IEC 60695-11-10 |
| | V-0 @Thickness 3.00 mm | V-0 @Thickness 0.118 in | IEC 60695-11-10 |
| | V-0 @Thickness 6.00 mm | V-0 @Thickness 0.236 in | IEC 60695-11-10 |
| | V-0 @Thickness 6.00 mm | V-0 @Thickness 0.236 in | UL94 |
| | V-0 @Thickness 3.00 mm | V-0 @Thickness 0.118 in | UL94 |
| | V-0 @Thickness 0.750 mm | V-0 @Thickness 0.0295 in | UL94 |
| | V-0 @Thickness 1.50 mm | V-0 @Thickness 0.0591 in | UL94 |
| Oxygen Index | 30 % | 30 % | ISO 4589-1/-2 |

| Thermal Properties | 960 °C Metric | 1760 °F English | Comments |
|--------------------|--------------------|---------------------|---------------|
| | @Thickness 3.00 mm | @Thickness 0.118 in | PL 60835-2-12 |

| Processing Properties | Metric | English | Comments |
|-----------------------|------------------|------------------|----------------------------|
| Melt Temperature | 250 °C | 482 °F | Optimum; Injection Molding |
| | 240 - 260 °C | 464 - 500 °F | Injection Molding |
| Mold Temperature | 80.0 °C | 176 °F | optimum; Injection Molding |
| | 30.0 - 130 °C | 86.0 - 266 °F | Injection Molding |
| Drying Temperature | 110 - 130 °C | 230 - 266 °F | Injection Molding |
| Dry Time | 2.00 - 4.00 hour | 2.00 - 4.00 hour | Injection Molding |
| Moisture Content | <= 0.040 % | <= 0.040 % | Injection Molding |

| Descriptive Properties | Value | Comments |
|---------------------------|------------------------|-----------|
| Appearance | Black Color | |
| Features | Flame Retardant | |
| Forms | Pellets | |
| Generic | PBT | |
| Material Status | Preliminary Data | |
| Part Marking Code | >PBT-FR(17)< | ISO 11469 |
| Processing Method | Injection Molding | |
| Product Category | Flame Retardant Resins | |
| | Flame Retardant Resins | |
| | Unreinforced Resins | |
| Region Available - Global | Yes | |
| Resin Identification | PBT-FR(17) | ISO 1043 |
| RoHS Compliance | Contact Manufacturer | |

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