

Technical Data Sheet

Schulatec PPS E FS BLK

Polyphenylene Sulfide

Product Description

PPS unreinforced, impact-modified, with high melt viscosity for extrusion application

Processing Method Extrusion

| Typical Properties | Nominal Value | Units | Test Method |
|---|----------------------|-------------------------|--------------------|
| Physical | | | |
| Melt Volume Flow Rate | 10 | cm ³ /10 min | ISO 1133 |
| Density, (Method A) | 1.17 | g/cm ³ | ISO 1183 |
| Mechanical | | | |
| Tensile Stress at Yield, (Type 1A, 50 mm/min) | 35.0 | MPa | ISO 527-2 |
| Flexural Modulus | 1300 | MPa | ISO 178 |
| Tensile Strain at Yield, (Type 1A, 50 mm/min) | 85 | % | ISO 527-2 |
| Tensile Modulus, (1 mm/min, Type 1A) | 1100 | MPa | ISO 527-1 |
| Flexural Stress, (3.5%) | 35.0 | MPa | ISO 178 |
| Impact | | | |
| Charpy Impact Strength - Notched, (Type 1, Edgewise, Notch A) | 60 | kJ/m ² | ISO 179 |
| Charpy Impact Strength - Unnotched | No Break | | ISO 179-1/1eU |
| Hardness | | | |
| Shore Hardness | | | |
| (Shore A, 10 sec) | 95 | | ISO 868 |
| (Shore D, 10 sec) | 70 | | ISO 868 |
| Thermal | | | |
| Vicat Softening Temperature | | | |
| (B (50N), 50 °C/h) | 130 | °C | ISO 306 |
| (A (10N), 50 °C/h) | 255 | °C | ISO 306 |
| Deflection Temperature Under Load Annealed (1.80 MPa) | 95 | °C | ISO 75-2/A |
| Deflection Temperature Under Load Unannealed (0.45 MPa) | 110 | °C | ISO 75-2/B |
| DSC Melting Point | 280 | °C | DSC |
| Electrical | | | |
| Comparative Tracking Index (CTI), (Solution A) | 175 | V | IEC 60112 |
| Flammable | | | |
| Burning Rate | | | |
| (2.00 mm) | 38 | mm/min | ISO 3795 |
| (2.00 mm) | 38 | mm/min | FMVSS 302 |

| Glow Wire Flammability Index | | | |
|------------------------------|-----|----|----------------|
| (0.75 mm) | 700 | °C | IEC 60695-2-12 |
| (1.5 mm) | 700 | °C | IEC 60695-2-12 |
| (3.0 mm) | 700 | °C | IEC 60695-2-12 |

| Glow Wire Ignition Temperature | | | |
|--------------------------------|-----|----|----------------|
| (0.75 mm) | 725 | °C | IEC 60695-2-13 |
| (1.5 mm) | 725 | °C | IEC 60695-2-13 |
| (3.0 mm) | 725 | °C | IEC 60695-2-13 |

UL Information

| Flame Rating | | | |
|--------------|----|--|-------|
| (1.5 mm) | HB | | UL 94 |
| (3.0 mm) | HB | | UL 94 |
| (0.75 mm) | HB | | UL 94 |

| Injection Parameters | Nominal Value | Units |
|-------------------------------------|---------------|-------|
| Drying Time | 3.0 to 4.0 | hr |
| Drying Temperature, (Dry Air Dryer) | 135 to 140 | °C |
| Processing (Melt) Temp | 285 to 295 | °C |