

Technical Data Sheet

ECOTRAN® E 1040S BK AS

Polyphenylene Sulfide
Engineering Plastics



Product Description

PPS 40% glass fibre reinforced

General

Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	• Antimony Free • Filled • Flame Retardant • Good Dimensional Stability • Halogen Free	• Heat Stabilized • High Flow • Hydrolysis Resistant • Impact Modified • Laser Markable	• Laser Weldable • Low Smoke Emission • Low Warpage
Processing Method	• Blow Molding • Extrusion	• Gas-Assisted Injection Molding • Injection Molding	• Water-Assisted Injection Molding
Resin ID (ISO 1043)	• PPS GF40		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.64 g/cm³	1.64 g/cm³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	30 cm³/10min	30 cm³/10min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	2.39E+6 psi	16500 MPa	ISO 527-2/1A/1
Tensile Stress (Break)	26100 psi	180 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.5 %	1.5 %	ISO 527-2/1A/5
Flexural Modulus ¹	2.18E+6 psi	15000 MPa	ISO 178
Flexural Stress ^{1,2} (2.0% Strain)	37700 psi	260 MPa	ISO 178
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	4.3 ft·lb/in²	9.0 kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength 73°F (23°C)	19 ft·lb/in²	40 kJ/m²	ISO 179/1eU
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	509 °F	265 °C	ISO 75-2/Af
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index	175 V	175 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ³			
0.0787 in (2.00 mm)	0.0 in/min	0.0 mm/min	ISO 3795
0.0787 in (2.00 mm)	0.0 in/min	0.0 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-0	V-0	
0.06 in (1.6 mm)	V-0	V-0	
0.13 in (3.2 mm)	V-0	V-0	
Glow Wire Flammability Index			IEC 60695-2-12
0.06 in (1.5 mm)	1760 °F	960 °C	
0.12 in (3.0 mm)	1760 °F	960 °C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.06 in (1.5 mm)	1560 °F	850 °C	
0.12 in (3.0 mm)	1560 °F	850 °C	



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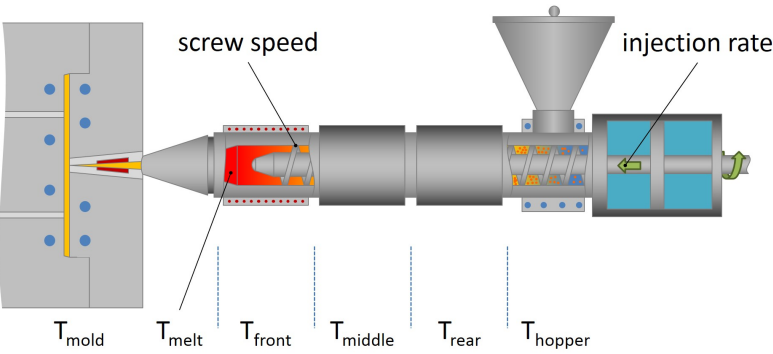
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Additional Information

- 1.) Not for use in food contact applications
- 2.) Not for use in medical or pharmaceutical applications



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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	284 °F	140 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Suggested Max Regrind	20 %	20 %
Processing (Melt) Temp	563 to 617 °F	295 to 325 °C
Mold Temperature	275 to 293 °F	135 to 145 °C

Notes

- ¹ 0.079 in/min (2.0 mm/min)
- ² at Break
- ³ Self-Extinguishing

Notes

These are typical property values not to be construed as specification limits.

