

Technical Data Sheet
ECOTRAN® E 1040S NC
AS



Polyphenylene Sulfide
 Engineering Plastics

Product Description

PPS 40% glass fibre reinforced

General

Filler / Reinforcement	• Glass Fiber, 40% Filler by Weight		
Features	<ul style="list-style-type: none"> • Antimony Free • Filled • Flame Retardant • Good Dimensional Stability • Halogen Free 	<ul style="list-style-type: none"> • Heat Stabilized • High Flow • Hydrolysis Resistant • Impact Modified • Laser Markable 	<ul style="list-style-type: none"> • Laser Weldable • Low Smoke Emission • Low Warpage
Processing Method	<ul style="list-style-type: none"> • Blow Molding • Extrusion 	<ul style="list-style-type: none"> • Gas-Assisted Injection Molding • Injection Molding 	<ul style="list-style-type: none"> • Water-Assisted Injection Molding
Resin ID (ISO 1043)	• PPS GF40		

Physical

	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.64 g/cm ³	1.64 g/cm ³	ISO 1183/A
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	30 cm ³ /10min	30 cm ³ /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)	27600 psi	190 MPa	ISO 527-2/1A/5
Tensile Strain (Break)	1.6 %	1.6 %	ISO 527-2/1A/5
Flexural Modulus ¹	2.32E+6 psi	16000 MPa	ISO 178
Flexural Stress ^{1,2} (2.0% Strain)	42100 psi	290 MPa	ISO 178

Impact

	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	4.8 ft·lb/in ²	10 kJ/m ²	
73°F (23°C)	4.8 ft·lb/in ²	10 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	18 ft·lb/in ²	37 kJ/m ²	
73°F (23°C)	20 ft·lb/in ²	42 kJ/m ²	

Thermal

	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/af
264 psi (1.8 MPa), Unannealed	511 °F	266 °C	

Electrical

	Nominal Value (English)	Nominal Value (SI)	Test Method
Comparative Tracking Index	175 V	175 V	IEC 60112

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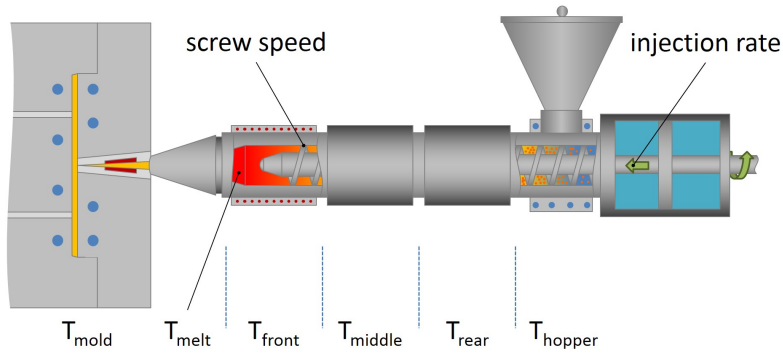
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Burning Rate ³			
0.0787 in (2.00 mm)	0.0 in/min	0.0 mm/min	ISO 3795
0.0787 in (2.00 mm)	0.0 in/min	0.0 mm/min	FMVSS 302
Flammability Classification			IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-0	V-0	
0.06 in (1.6 mm)	V-0	V-0	
0.13 in (3.2 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	

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.