

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

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.64 g/cm <sup>3</sup>	1.64 g/cm <sup>3</sup>	ISO 1183/A
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	30 cm <sup>3</sup> /10min	30 cm <sup>3</sup> /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 <sup>1</sup>	2.18E+6 psi	15000 MPa	ISO 178
Flexural Stress <sup>1,2</sup> (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/in <sup>2</sup>	9.0 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength 73°F (23°C)	19 ft·lb/in <sup>2</sup>	40 kJ/m <sup>2</sup>	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 <sup>3</sup>			
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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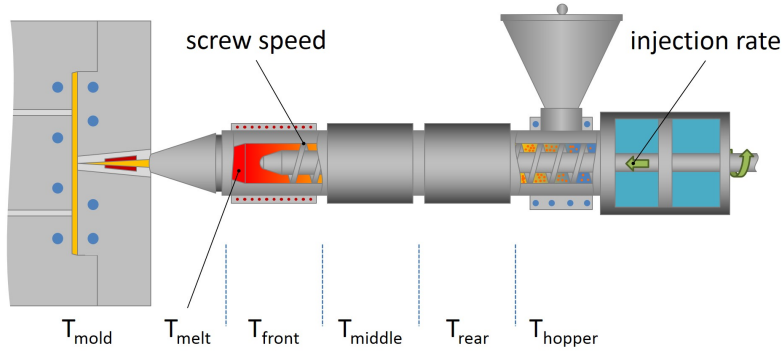
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**Additional Information**

- 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**

<sup>1</sup> 0.079 in/min (2.0 mm/min)

<sup>2</sup> at Break

<sup>3</sup> Self-Extinguishing

**Notes**

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