

Technical Data Sheet

Polyfort TPP40AC45BK-BKBLK



Polypropylene, Unspecified (PP, Unspecified)

Product Description

Meets/Exceeds Ford Engineering Specification ESA-M4D166-A. Primary end use is for fan shrouds and battery covers.

Regulatory Status

For regulatory compliance information, see TPP40AC45BK-BKBLK [Product Stewardship Bulletin \(PSB\)](#) and [Safety Data Sheet \(SDS\)](#).

Status	Commercial: Active
Availability	Latin America; North America
Processing Method	Injection Molding
Attribute	Heat Stabilized; Homopolymer
Forms	Pellets
Appearance	Black
Additive	Heat Stabilizer
Filler/Reinforcement	Talc, 40%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate, (230 °C/2.16 kg)	5.6	g/10 min	ASTM D1238
Density - Specific Gravity	1.28	g/cm ³	ASTM D792
Mechanical			
Tensile Strength, (23 °C)	31.7	MPa	ASTM D638
Tensile Elongation at Yield	4	%	ASTM D638
Flexural Strength at Yield	52.7	MPa	ASTM D790
Flexural Modulus	3800	MPa	ASTM D790
Impact			
Unnotched Izod Impact, (23 °C)	240	J/m	ASTM D4812
Notched Izod Impact, (23 °C)	27	J/m	ASTM D256
Hardness			
Durometer Hardness, (Shore D)	74		ASTM D2240
Thermal			
Deflection Temperature Under Load Unannealed (264 psi)	80	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	131	°C	ASTM D648



Injection Parameters	Nominal Value	Units
Drying Time	2.0 to 3.0	hr
Drying Temperature	80	°C
Clamp Tonnage	2.8 to 4.1	kN/cm ²
Nozzle Temperature	216 to 218	°C
Screw Speed	100 to 150	rpm
Processing (Melt) Temp	220 to 260	°C
Front Temperature	213 to 216	°C
Screw L/D Ratio	20.0-1.0	
Screw Compression Ratio	2.0-1.0	
Middle Temperature	210 to 213	°C
Rear Temperature	204 to 210	°C
Back Pressure	0.138 to 0.345	MPa
Mold Temperature	30 to 60	°C

Notes

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

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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