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.

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/cm³	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/cm²
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