Technical Data Sheet

Polyfort TPP40AC38WH-WHWHI

Polypropylene, Homopolymer

Product Description

Meets/Exceeds Ford Engineering Specification WSK-M4D644-A4.Primary end use is for instrument clusters.

Processing Method	Injection Molding
Attribute	Heat Stabilized; Homopolymer
Forms	Pellets
Appearance	White
Additive	Heat Stabilizer
Filler/Reinforcement	Talc, 43%

Typical Properties	Nominal Value	Units	Test Method
Physical			
Melt Flow Rate			
(230 °C/2.16 kg)	5.7	g/10 min	ASTM D1238
(230 °C/2.16 kg)	5.2	g/10 min	ISO 1133
Density	1.3	g/cm³	ISO 1183
Density - Specific Gravity	1.32	g/cm³	ASTM D792
Mechanical			
Tensile Strength at Yield	29	MPa	ASTM D638
Flexural Strength at Yield	48.3	MPa	ASTM D790
Tensile Stress at Yield, (23 °C)	27.6	MPa	ISO 527-2
Flexural Modulus	3800	MPa	ISO 178
Tensile Elongation at Break	11	%	ASTM D638
Impact			
Notched Izod Impact Strength			
(23 °C)	2.0	kJ/m²	ISO 180
(-40 °C)	1.7	kJ/m²	ISO 180
Gardner Impact	1.02	J	ASTM D3029
Unnotched Izod Impact, (23 °C)	270	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 (0.45 MPa)	130	°C	ISO 75-2/B
Deflection Temperature Under Load Unannealed (1.80 MPa)	82	°C	ISO 75-2/A
Deflection Temperature Under Load Unannealed (264 psi)	82.2	°C	ASTM D648
Deflection Temperature Under Load Unannealed (66 psi)	129	°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