

Technical Data Sheet

Ferro Pp TPP40AC52BK

Polypropylene Homopolymer

LyondellBasell Industries

Engineering Plastics

Product Description

Meets/Exceeds Ford Engineering Specification ESH-M4D166-C.

Primary end use is for AC/heater ducts and similar components.

General

Filler / Reinforcement	• Talc, 40% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • Homopolymer
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.25	1.25 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 Kg)	6.8 g/10 min	6.8 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (73°F (23°C))	4530 psi	31.2 MPa	ASTM D638
Tensile Elongation (Break)	12 %	12 %	ASTM D638
Flexural Modulus	638000 psi	4400 MPa	ASTM D790
Flexural Strength (Yield)	7750 psi	53.4 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	0.51 ft·lb/in	27 J/m	ASTM D256
Unnotched Izod Impact (73°F (23°C))	4.7 ft·lb/in	250 J/m	ASTM D4812
Gardner Impact	13.0 in·lb	1.47 J	ASTM D3029
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	74	74	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 Psi (0.45 Mpa), Unannealed	266 °F	130 °C	
264 Psi (1.8 Mpa), Unannealed	180 °F	82.0 °C	

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	2.0 to 3.0 hr	2.0 to 3.0 hr
Rear Temperature	400 to 410 °F	204 to 210 °C
Middle Temperature	410 to 415 °F	210 to 213 °C
Front Temperature	415 to 420 °F	213 to 216 °C
Nozzle Temperature	420 to 425 °F	216 to 218 °C
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C
Mold Temperature	86 to 140 °F	30 to 60 °C
Back Pressure	20.0 to 50.0 psi	0.138 to 0.345 MPa
Screw Speed	100 to 150 rpm	100 to 150 rpm
Clamp Tonnage	2.0 to 3.0 tons/in ²	2.8 to 4.1 kN/cm ²
Screw L/D Ratio	20.0:1.0	20.0:1.0
Screw Compression Ratio	2.0:1.0	2.0:1.0

Notes

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