

Technical Data Sheet



Ferro Pp TPP20AC17BK

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description

Meets/Exceeds Ford Engineering Specification ESH-M4D293-B.
Primary end use is for AC/heater ducts and similar components.

General

Material Status	• Commercial: Active		
Availability	• Latin America	• North America	
Filler / Reinforcement	• Talc, 20% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• General Purpose	• Heat Stabilized	• Homopolymer
Automotive Specifications	• ASTM D5857 PP212 T20 Z1 • CALSONIC KANSEI EMS# 4540-10057	• CHRYSLER MS-DB-500 CPN2347 Color: Black • FORD ESA-M4D293-A	• FORD ESH-M4D293-B
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.06	1.06 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	6.2 g/10 min	6.2 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (73°F (23°C))	4450 psi	30.7 MPa	ASTM D638
Tensile Elongation (Break)	20 %	20 %	ASTM D638
Flexural Modulus	348000 psi	2400 MPa	ASTM D790
Flexural Strength (Yield)	7500 psi	51.7 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F (23°C))	0.60 ft·lb/in	32 J/m	ASTM D256
Unnotched Izod Impact (73°F (23°C))	9.5 ft·lb/in	510 J/m	ASTM D4812
Gardner Impact	6.00 in·lb	0.678 J	ASTM D3029
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Rockwell Hardness (R-Scale)	100	100	ASTM D785
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	248 °F	120 °C	
264 psi (1.8 MPa), Unannealed	156 °F	69.0 °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.

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.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

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

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