

Technical Data Sheet

Ferro Pp TPP20AF39BK

Polypropylene Homopolymer
 LyondellBasell Industries
 Engineering Plastics

Product Description

Meets/Exceeds Ford Engineering Specification WSS-M4D729-A4.
 Primary end use is for head lamp housings.

General

Filler / Reinforcement	• Talc, 20% Filler by Weight
Additive	• Heat Stabilizer • UV Stabilizer
Features	• Heat Stabilized • Homopolymer • UV Resistant
Automotive Specifications	• FORD WSS-M4D729-A4 Color: Black
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183/A
Melt Mass-Flow Rate (MFR) (230°C/2.16 Kg)	5.5 g/10 min	5.5 g/10 min	ISO 1133

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Stress (Yield, 73°F (23°C))	4470 psi	30.8 MPa	ISO 527-2
Flexural Modulus	392000 psi	2700 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact Strength			ISO 180
-40°F (-40°C)	1.1 ft·lb/in ²	2.4 kJ/m ²	
73°F (23°C)	1.7 ft·lb/in ²	3.5 kJ/m ²	

Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			
66 Psi (0.45 Mpa), Unannealed	252 °F	122 °C	ISO 75-2/B
264 Psi (1.8 Mpa), Unannealed	162 °F	72.0 °C	ISO 75-2/A

Additional Information

Tensile/Izod Change, ISO 188, 1000 hours, 140°C: +15%/+5%

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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
Processing (Melt) Temp	428 to 500 °F	220 to 260 °C
Mold Temperature	86 to 140 °F	30 to 60 °C

Notes

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