

Technical Data Sheet

**Ferro Pp TPP40AC38WH**

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

Product Description

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

General

Material Status	• Commercial: Active	
Availability	• Latin America	• North America
Filler / Reinforcement	• Talc, 43% Filler by Weight	
Additive	• Heat Stabilizer	
Features	• Heat Stabilized	• Homopolymer
Automotive Specifications	• FORD WSK-M4D644-A4	
Appearance	• White	
Forms	• Pellets	
Processing Method	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity			
--	1.32	1.32 g/cm ³	ASTM D792
--	1.30 g/cm ³	1.30 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			
230°C/2.16 kg	5.7 g/10 min	5.7 g/10 min	ASTM D1238
230°C/2.16 kg	5.2 g/10 min	5.2 g/10 min	ISO 1133
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength			
Yield	4200 psi	29.0 MPa	ASTM D638
Yield, 73°F (23°C)	4000 psi	27.6 MPa	ISO 527-2
Tensile Elongation (Break)	11 %	11 %	ASTM D638
Flexural Modulus			
--	420000 psi	2900 MPa	ASTM D790
--	551000 psi	3800 MPa	ISO 178
Flexural Strength (Yield)	7000 psi	48.3 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			
73°F (23°C)	0.50 ft·lb/in	27 J/m	ASTM D256
-40°F (-40°C)	0.81 ft·lb/in ²	1.7 kJ/m ²	ISO 180
73°F (23°C)	0.95 ft·lb/in ²	2.0 kJ/m ²	ISO 180
Unnotched Izod Impact (73°F (23°C))	5.0 ft·lb/in	270 J/m	ASTM D4812
Gardner Impact	9.00 in·lb	1.02 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			
66 psi (0.45 MPa), Unannealed	265 °F	129 °C	ASTM D648
66 psi (0.45 MPa), Unannealed	266 °F	130 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	180 °F	82.2 °C	ASTM D648 ISO 75-2/A

Additional Information

Tensile/Izod Change, ISO 188, 2000 hours, 150°C: +11%/-8%

Technical Data Sheet



Ferro Pp TPP40AC38WH

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics



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/>.

© LyondellBasell Industries Holdings, B.V. 2024

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

Technical Data Sheet

**Ferro Pp TPP40AC38WH**

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.