

Technical Data Sheet

**Matrixx TPP1A40HB**

Polypropylene Homopolymer
LyondellBasell Industries
Engineering Plastics

General			
Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Talc, 40% Filler by Weight		
Features	• Homopolymer		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.24	1.24 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)	3.5 g/10 min	3.5 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, 73°F (23°C))	4500 psi	31.0 MPa	ASTM D638
Flexural Modulus - Tangent	530000 psi	3650 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256
73°F (23°C), 0.125 in (3.18 mm)	0.50 ft·lb/in	27 J/m	
Gardner Impact	4.00 in·lb	0.452 J	ASTM D3029
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	76	76	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed	270 °F	132 °C	
264 psi (1.8 MPa), Unannealed	180 °F	82.2 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	HB	HB	UL 94
Additional Information			
Melt Flow Rate, ASTM D1238: 0-7 g/10min			

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Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	180 to 220 °F	82 to 104 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Rear Temperature	350 to 430 °F	177 to 221 °C
Middle Temperature	350 to 430 °F	177 to 221 °C
Front Temperature	350 to 430 °F	177 to 221 °C
Processing (Melt) Temp	390 to 440 °F	199 to 227 °C
Mold Temperature	70 to 120 °F	21 to 49 °C
Injection Rate	Moderate	Moderate
Back Pressure	20.0 to 300 psi	0.138 to 2.07 MPa
Cushion	0.250 to 0.500 in	6.35 to 12.7 mm

Injection Notes

- Drying not normally required
- Injection Booster Pressure: Maximum without flash, 60% of machine maximum, target
- Screw Speed: Slow to Medium

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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