

Technical Data Sheet

**Matrixx 12N4006**

Polypropylene
LyondellBasell Industries
Engineering Plastics

Product Description

Medium Flow, High Impact, Flame Retardant Polypropylene

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Flame Retardant
Features	• Flame Retardant • High Impact Resistance
UL File Number	• E51193
Forms	• Pellets

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	0.940	0.938 g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	6.5 g/10 min	6.5 g/10 min	ASTM D1238
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	3000 psi	20.7 MPa	ASTM D638
Flexural Modulus - Tangent	150000 psi	1030 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	No Break	No Break	ASTM D256
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	180 °F	82.2 °C	ASTM D648
RTI Elec (0.06 to 0.12 in (1.5 to 3.0 mm))	239 °F	115 °C	UL 746B
RTI Imp (0.06 to 0.12 in (1.5 to 3.0 mm))	239 °F	115 °C	UL 746B
RTI Str (0.06 to 0.12 in (1.5 to 3.0 mm))	239 °F	115 °C	UL 746B
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm), ALL	V-2	V-2	
0.12 in (3.0 mm), ALL	V-2	V-2	

Additional Information

The value listed as Mold Shrinkage, Linear-Flow, ASTM D955, was tested in accordance with Matrixx test methods.

Technical Data Sheet



Matrixx 12N4006

Polypropylene
LyondellBasell Industries
Engineering Plastics



Injection	Nominal Value (English)	Nominal Value (SI)
Drying Temperature	180 °F	82 °C
Drying Time	4.0 hr	4.0 hr
Rear Temperature	350 to 420 °F	177 to 216 °C
Middle Temperature	350 to 440 °F	177 to 227 °C
Front Temperature	350 to 440 °F	177 to 227 °C
Nozzle Temperature	350 to 440 °F	177 to 227 °C
Processing (Melt) Temp	360 to 440 °F	182 to 227 °C
Mold Temperature	90 to 150 °F	32 to 66 °C
Injection Rate	Slow-Moderate	Slow-Moderate
Back Pressure	< 100 psi	< 0.689 MPa
Cushion	0.250 to 0.500 in	6.35 to 12.7 mm

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

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