

Lupolen 5031 L Q 449 K

High Density Polyethylene
LyondellBasell Industries

Technical Data

Product Description

Lupolen 5031 L Q 449 K is a high density polyethylene (HDPE) base material for extrusion of silane crosslinked pipes (PE-Xb). It is not intended for medical and pharmaceutical applications.

General

Material Status	• Commercial: Active
Literature ¹	• Processing - Mold Shrink (English) • Processing - PE Films (English) • Processing - Polyolefin Injection Molding Guide (English) • Technical Datasheet (English)
Search for UL Yellow Card	• LyondellBasell Industries • Lupolen
Availability	• Europe
Features	• Crosslinkable
Uses	• Piping
Forms	• Pellets
Processing Method	• Pipe Extrusion • Sheet Extrusion

Physical	Nominal Value Unit	Test Method
Density	0.955 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)		ISO 1133
190°C/2.16 kg	4.0 g/10 min	
190°C/5.0 kg	13 g/10 min	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus - Secant (23°C)	1100 MPa	ISO 527-2/1
Tensile Stress (Yield, 23°C)	26.0 MPa	ISO 527-2/50
Tensile Strain (Yield, 23°C)	10 %	ISO 527-2/50

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (23°C)	5.0 kJ/m ²	ISO 179

Hardness	Nominal Value Unit	Test Method
Shore Hardness (Shore D, 3 sec)	62	ISO 868
Ball Indentation Hardness (H 132/30)	50.0 MPa	ISO 2039-1

Thermal	Nominal Value Unit	Test Method
Vicat Softening Temperature		
--	125 °C	ISO 306/A50
--	70.0 °C	ISO 306/B50
Melting Temperature (DSC)	131 °C	ISO 3146

Extrusion	Nominal Value Unit
Melt Temperature	< 280 °C

Extrusion Notes

Melt temperatures above 280 °C should be avoided to prevent potential degradation. In case higher temperatures are needed please contact LyondellBasell.

Notes

¹ These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

² Typical properties: these are not to be construed as specifications.