

Alathon® M5312

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

ALATHON M5312 is especially designed for personal care and pharmaceutical product bottles. This resin imparts high gloss to the end products and is suitable for both extrusion blow molding and injection blow molding.

Without exception, all potential activities for applications in the pharmaceutical, medical device, laboratory and diagnostics area have to be discussed with the relevant Technical (P & AD) and Business contacts first.

General

Material Status	• Commercial: Active	
Literature ¹	• Processing - Mold Shrink (English) • Processing - Polyolefin Injection Molding Guide (English) • Processing - Start-Up Guide (English) • Technical Datasheet (English)	
Search for UL Yellow Card	• LyondellBasell Industries • Alathon®	
Availability	• Asia Pacific • Europe	• North America • South America
Features	• Food Contact Acceptable	• High Gloss
Uses	• Bottles	• Pharmaceuticals
Agency Ratings	• FDA 21 CFR 177.1520	
Processing Method	• Extrusion Blow Molding	• Injection Blow Molding

Physical	Nominal Value Unit	Test Method
Density	0.953 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	1.3 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance F50	20.0 hr	ASTM D2561
Mechanical	Nominal Value Unit	Test Method
Tensile Strength (Yield)	27.6 MPa	ASTM D638
Tensile Elongation (Break)	> 600 %	ASTM D638
Flexural Modulus	1250 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Tensile Impact	64.1 J/cm	ASTM D1822
Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	67	ASTM D2240
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	72.0 °C	ASTM D648
Brittleness Temperature	< -76.0 °C	ASTM D746
Vicat Softening Temperature	126 °C	ASTM D1525

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.