

Alathon® 9301

High Density Polyethylene
LyondellBasell Industries

Technical Data

Product Description

ALATHON 9301 is a high density polyethylene resin designed for sheet extrusion and thermoforming. ALATHON 9301 exhibits very low sag and high stiffness.

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 Stiffness	
Uses	• Profiles	• Sheet	
Agency Ratings	• FDA 21 CFR 177.1520		
Processing Method	• Profile Extrusion	• Sheet Extrusion	• Thermoforming

Physical	Nominal Value Unit	Test Method
Density	0.958 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR)		ASTM D1238
190°C/2.16 kg	0.35 g/10 min	
190°C/21.6 kg	35 g/10 min	
Environmental Stress-Cracking Resistance F50	80.0 hr	ASTM D1693

Mechanical	Nominal Value Unit	Test Method
Tensile Strength (Yield)	29.6 MPa	ASTM D638
Tensile Elongation (Break)	> 700 %	ASTM D638
Flexural Modulus ³	1240 MPa	ASTM D790B

Impact	Nominal Value Unit	Test Method
Tensile Impact Strength ⁴	193 kJ/m ²	ASTM D1822

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	76.0 °C	ASTM D648
Brittleness Temperature	< -80.0 °C	ASTM D746
Vicat Softening Temperature	128 °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.

³ Type I

⁴ Type S