

Alathon® L5440AS

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

ALATHON L5440 is designed for high shear machines. It exhibits excellent color, low odor and excellent processing stability. Typical applications include general purpose, household chemicals, industrial chemicals, detergent, and motor oil bottles. L5440 containing antistat is available as L5440AS.

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) • Technical Datasheet (English)		
Search for UL Yellow Card	• LyondellBasell Industries • Alathon®		
Availability	• Asia Pacific • Europe	• North America • South America	
Additive	• Antistatic		
Features	• Antistatic • Food Contact Acceptable	• General Purpose • Good Processing Stability	• Low to No Odor
Uses	• Bottles	• General Purpose	
Agency Ratings	• FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Blow Molding		

Physical	Nominal Value Unit	Test Method
Density	0.954 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.35 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance 50°C, 10% Igepal CO-630, F50	50.0 hr	ASTM D1693

Mechanical	Nominal Value Unit	Test Method
Tensile Strength (Yield)	28.3 MPa	ASTM D638
Tensile Elongation (Break)	> 600 %	ASTM D638
Flexural Modulus	1230 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Tensile Impact Strength	338 kJ/m ²	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	76.0 °C	ASTM D648
Brittleness Temperature	< -76.0 °C	ASTM D746
Vicat Softening Temperature	127 °C	ASTM D1525

Additional Information

Elongation at Break, ASTM D638: >600%
Tensile Impact, ASTM D1822: 161 ft-lb/in

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.