

Alathon® L5040AS

High Density Polyethylene
LyondellBasell Industries

Technical Data

Product Description

ALATHON L5040 is able to incorporate high levels of post consumer recycle and retain excellent bottle physical properties. This resin provides high ESCR and processing stability. Typical applications include stress crack resistant bottles and extruded pipe and conduit. L5040 containing antistat is available as L5040AS

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	
Additive	• Antistatic		
Recycled Content	• Yes		
Features	• Antistatic • Food Contact Acceptable	• Good Processing Stability • High ESCR (Stress Crack Resist.)	
Uses	• Bottles	• Conduit	• Piping
Agency Ratings	• FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion	• Pipe Extrusion

Physical	Nominal Value Unit	Test Method
Density	0.949 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.40 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance 50°C, 10% Igepal CO-630, F50	> 1000 hr	ASTM D1693

Mechanical	Nominal Value Unit	Test Method
Tensile Strength (Yield)	23.4 MPa	ASTM D638
Tensile Elongation (Break)	600 %	ASTM D638
Flexural Modulus	1100 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Tensile Impact Strength	395 kJ/m ²	ASTM D1822

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	63	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	76.0 °C	ASTM D648
Brittleness Temperature	< -75.0 °C	ASTM D746
Vicat Softening Temperature	128 °C	ASTM D1525

Additional Information

Elongation at Break, ASTM D638: >600%
Tensile Impact, ASTM D1822: 188 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.