

Alathon® L5800I

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

ALATHON L 5800-I, designed for high performance applications, exhibits excellent color, low odor, and good processing stability . A typical application for this resin is open-head pails.

General

Material Status	• Commercial: Active		
Literature ¹	• Processing - Mold Shrink (English) • Processing - Polyolefin Injection Molding Guide (English) • Processing - Start-Up Guide (English)		
Search for UL Yellow Card	• LyondellBasell Industries • Alathon®		
Availability	• Asia Pacific • Europe	• North America • South America	
Features	• Food Contact Acceptable	• Good Processing Stability	• Low to No Odor
Uses	• Pails		
Agency Ratings	• FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value Unit	Test Method
Density	0.958 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.35 g/10 min	ASTM D1238

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield ³	28.9 MPa	
Break	29.1 MPa	
Tensile Elongation ³ (Yield)	6.9 %	ASTM D638
Flexural Modulus ⁴		ASTM D790
1% Secant	1380 MPa	
2% Secant	1140 MPa	

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	66	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	76.1 °C	ASTM D648
Brittleness Temperature	-76.1 °C	ASTM D746
Vicat Softening Temperature	130 °C	ASTM D1525

Additional Information

Spiral Flow, Equistar Test Method, 0.625 in insert, 1000 psi injection pressure, 440°F melt temperature: 7.4 in

Injection	Nominal Value Unit
Rear Temperature	232 °C
Middle Temperature	243 °C
Front Temperature	246 °C
Nozzle Temperature	246 °C