

Alathon® H5623X01

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

ALATHON H5623X01 provides easy processing characteristics and exhibits excellent toughness properties, color and good processing stability. Typical applications include housewares, containers, caps and closures.

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	• Good Colorability • Good Processability	• Good Processing Stability • Ultra High Toughness
Uses	• Caps • Closures	• Containers • Household Goods
Processing Method	• Extrusion	

Physical	Nominal Value Unit	Test Method
Density	0.956 g/cm ³	ASTM D1505
Apparent Density	0.59 to 0.63 g/cm ³	ASTM D1895
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	23 g/10 min	ASTM D1238
Spiral Flow ^{3, 4}	29.7 cm	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus ⁵		ASTM D638
-- ⁶	1140 MPa	
1% Secant	898 MPa	
Tensile Strength ⁷		ASTM D638
Yield	29.4 MPa	
Break	26.1 MPa	
Tensile Elongation ⁷		ASTM D638
Yield	9.2 %	
Break	18 %	
Flexural Modulus ⁸		ASTM D790
-- ⁶	1110 MPa	
1% Secant	1330 MPa	
2% Secant	814 MPa	

Impact	Nominal Value Unit	Test Method
Notched Izod Impact (23°C)	43 J/m	ASTM D256
Unnotched Izod Impact (-18°C)	No Break	ASTM D256

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	69	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load ⁹		ASTM D648
0.45 MPa, Unannealed	73.0 °C	
Brittleness Temperature ¹⁰	< -76.0 °C	ASTM D746
Vicat Softening Temperature	127 °C	ASTM D1525
Peak Melting Temperature	132 °C	ASTM D3418
Peak Crystallization Temperature (DSC)	117 °C	ASTM D3418