

Alathon® ETP H5656

High Density Polyethylene

LyondellBasell Industries

Technical Data

Product Description

ALATHON H5656 is a high-flow injection molding grade of resin designed for thin-wall molding. This resin exhibits enhanced processing and thermal stability for fast cycling in multi-cavity stack molds, good color and organoleptic properties. Typical applications include rigid packaging such as promotional drink cups and deli containers.

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® ETP		
Availability	• Asia Pacific • Europe	• North America • South America	
Features	• Fast Molding Cycle • Food Contact Acceptable	• Good Organoleptic Properties • Good Processability	• Good Thermal Stability • High Flow
Uses	• Containers • Cups	• Packaging • Thin-walled Parts	
Agency Ratings	• FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Injection Molding		

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)	56 g/10 min	ASTM D1238
Spiral Flow ^{3, 4}	52.1 cm	Internal Method

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus ⁵		ASTM D638
--	860 MPa	
1% Secant	714 MPa	
Tensile Strength ⁶ (Break)	21.9 MPa	ASTM D638
Tensile Elongation ⁶ (Break)	3.2 %	ASTM D638
Flexural Modulus		ASTM D790
--	1390 MPa	
1% Secant ⁷	1280 MPa	
2% Secant ⁷	1070 MPa	

Impact	Nominal Value Unit	Test Method
Notched Izod Impact (23°C)	20 J/m	ASTM D256
Unnotched Izod Impact (-18°C)	260 J/m	ASTM D4812

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	71	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	74.0 °C	ASTM D648
Vicat Softening Temperature	123 °C	ASTM D1525
Peak Melting Temperature	115 to 129 °C	ASTM D3418

Injection	Nominal Value Unit
Rear Temperature	232 °C
Middle Temperature	243 °C