

Alathon® ETP H4262

High Density Polyethylene
LyondellBasell Industries

Technical Data

Product Description

Alathon H4262 is a high-flow resin that exhibits very good cold temperature impact performance, optimum processing and thermal stability, with good color and organoleptic properties. Typical customer applications include rigid food packaging such as four, five and six-quart ice cream containers produced at high speeds in fast-cycling, multi-cavity stack molds.

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 • Good Colorability • Good Organoleptic Properties	• Good Processing Stability • Good Thermal Stability • High Flow	• Low Temperature Impact Resistance
Uses	• Food Containers	• Thin-walled Containers	
Agency Ratings	• FDA 21 CFR 177.1520		
Processing Method	• Blow Molding	• Injection Molding	

Physical	Nominal Value Unit	Test Method
Density	0.942 g/cm³	ASTM D1505
Apparent Density	0.59 to 0.63 g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR)	62 g/10 min	ASTM D1238
Spiral Flow ^{3, 4}	47.5 cm	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus ⁵		ASTM D638
--	1010 MPa	
1% Secant	798 MPa	
Tensile Elongation ⁶ (Break)	5.0 %	ASTM D638
Flexural Modulus ⁷		ASTM D790
--	971 MPa	
1% Secant	840 MPa	
2% Secant	716 MPa	
Flexural Strength ⁸ (Break)	18.5 MPa	ASTM D790

Impact	Nominal Value Unit	Test Method
Notched Izod Impact (23°C)	30 J/m	ASTM D256
Unnotched Izod Impact (-18°C)	No Break	ASTM D4812

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	62.0 °C	ASTM D648
Vicat Softening Temperature	116 °C	ASTM D1525
Peak Melting Temperature	125 °C	ASTM D3418
Peak Crystallization Temperature (DSC)	113 °C	ASTM D3418

Extrusion	Nominal Value Unit
Cylinder Zone 1 Temp.	246 °C
Cylinder Zone 2 Temp.	246 °C

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