

Alathon® M5562

High Density Polyethylene Copolymer

LyondellBasell Industries

Technical Data

Product Description

ALATHON M5562 is a copolymer with medium molecular weight distribution. This resin provides moderate stiffness, toughness and stress crack resistance. Typical applications include nozzle valves and specialty injection molded parts.

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	• Copolymer • Food Contact Acceptable	• Good Stiffness • Good Toughness	• High ESCR (Stress Crack Resist.) • Med.-Wide Molecular Weight Distrib.
Agency Ratings	• FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value Unit	Test Method
Density	0.955 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0 g/10 min	ASTM D1238
Spiral Flow ^{3, 4}	27.7 cm	

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield ⁵	28.3 MPa	
Break	14.3 MPa	
Tensile Elongation ⁵ (Yield)	10 %	ASTM D638
Flexural Modulus ⁶		ASTM D790
1% Secant	1210 MPa	
2% Secant	993 MPa	

Hardness	Nominal Value Unit	Test Method
Durometer Hardness (Shore D)	70	ASTM D2240

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	72.0 °C	ASTM D648
Brittleness Temperature	< -76.0 °C	ASTM D746
Vicat Softening Temperature	127 °C	ASTM D1525

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