

Alathon® M6028

High Density Polyethylene

LyondellBasell Industries

Product Description

M6028 is a homopolymer that is warp resistant, exhibits excellent toughness, stiffness and color as well as low odor and good processing stability. Typical applications include safety equipment (hard hats), hardware items and heavy wall moldings.

General

Features	- Food Contact Acceptable - Good Processing Stability	- Good Stiffness - Good Toughness	- Low to No Odor - Warp Resistant
Uses	Safety Helmets		
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)	2.8 g/10 min	ASTM D1238

Mechanical	Nominal Value Unit	Test Method
Tensile Strength		ASTM D638
Yield ²	28.4 MPa	
Break	31.1 MPa	
Tensile Elongation ² (Yield)	10 %	ASTM D638
Flexural Modulus ³		ASTM D790
1% Secant	1280 MPa	
2% Secant	1050 MPa	

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

Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed	75.0 °C	
Brittleness Temperature	-76.1 °C	ASTM D746
Vicat Softening Temperature	129 °C	ASTM D1525

Additional Information

Spiral Flow, Equistar Test Method, 0.625 in insert, 1000 psi injection pressure, 440°F melt temperature: 6.4 in

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

Notes

¹ Typical properties: these are not to be construed as specifications.

² 51 mm/min

³ 13 mm/min