EQUISTAR
A Lyondell Company

Alathon®

M6028

High Density Polyethylene
Injection Molding Grade
Melt Index 2.8 Density 0.958

Applications

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.

Regulatory Status

Alathon M6028 meets the requirements of the Food and Drug Administration regulation 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food. " Specific limitations or conditions of use may apply. Contact your Equistar sales representative for more information.

Processing Techniques

Specific recommendations for processing M6028 can only be made when the processing conditions, equipment and end use are known. For further suggestions, please contact your Equistar sales representative.

Suggested Start-up Conditions

Extruder Zone	Rear	Center	Front	Nozzle
Cylinder Temperature °F (°C)	450 (232)	470 (243)	475 (246)	475 (246)

Typical Properties

Property	Nominal Value	Units	Test Method
Melt Index	2.8	g/10 min	ASTM D 1238
Density	0.958	g/cc	ASTM D 1505
Spiral Flow[1]	6.4 (16.3)	in (cm)	Equistar
Tensile Strength @ Break	4,510 (31.1)	psi (MPa)	ASTM D 638
Tensile Strength @ Yield[2]	4,120 (28.4)	psi (MPa)	ASTM D 638
Elongation @ Yield[2]	10	%	ASTM D 638
1% Secant Modulus[3]	186,000 (1,280	psi (MPa)	ASTM D 790
2% Secant Modulus[3]	153,000 (1,050)	psi (MPa)	ASTM D 790
Vicat Softening Point	264 (129	°F (°C	ASTM D 1525
Hardness, Shore D	71		ASTM D 2240
Heat Deflection Temperature, 66 psi[4]	167 (75)	°F (°C)	ASTM D 648
Low Temperature Brittleness, F_{50}[4]	<-105 (<-76)	°F (°C)	ASTM D 746

[1] Measures the number of inches of flow produced when molten resin is injected into a long, spiral channel (0.625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440°F.
[2] Crosshead speed - 2" min
[3] Crosshead speed - 0.5" min
[4] Data are for control and development work and not intended for use in design or predicting performance at elevated or sub-ambient temperatures.