

Alathon®

H 5618

High Density Polyethylene Injection Molding Grade Melt Index 18 Density 0.956

Applications

ALATHON H 5618 provides easy processing characteristics and exhibits excellent toughness properties and color as well as low odor and good processing stability. Typical applications include housewares, containers, caps and closures.

Certification

H 5618 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 H 5618 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)

Physical Properties

Property	Nominal Value	Units	Test Method
Melt Index	18	g/10 min	ASTM D 1238
Density	0.956	g/cc	ASTM D 1505
Spiral Flow ¹	13.0 (33)	in (cm)	Equistar
Tensile Strength @ Break	4,000 (28)	psi (MPa)	ASTM D 638
Tensile Strength @ Yield ²	4,210 (29)	psi (MPa)	ASTM D 638
Elongation @ Yield ²	7.7	%	ASTM D 638
1% Secant Modulus ³	200,000 (1,380)	psi (MPa)	ASTM D 790
2% Secant Modulus ³	167,000 (1,150)	psi (MPa)	ASTM D 790
Vicat Softening Point	257 (125)	°F (°C)	ASTM D 1525
Hardness, Shore D	69		ASTM D 2240
Heat Deflection Temperature, 66 psi	167 (75)	°F (°C)	ASTM D 648
Low Temperature Brittleness, F ₅₀	< -105 (< -76)	°F (°C)	ASTM D 746

¹ Measures the number on 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

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