

Technical Data Sheet

Alathon H6017

High Density Polyethylene

Product Description

Alathon H6017 provides good processing characteristics and exhibits excellent toughness and color as well as low odor and good molded-part stability. Typical applications include housewares, caps, closures and various food containers.

Application Containers; Lids; Overcaps

Market Rigid Packaging

Processing Method Injection Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	18	g/10 min	18	g/10 min	ASTM D1238
Density, (23 °C)	0.960	g/cm ³	0.960	g/cm ³	ASTM D1505
Bulk Density	37-39	lb/ft ³	593-625	kg/m ³	ASTM D1895
Spiral Flow	11.1	in	28.2	cm	LYB Method
Mechanical					
Flexural Modulus					
(1% Secant)	199000	psi	1370	MPa	ASTM D790
(2% Secant)	162000	psi	1120	MPa	ASTM D790
Flexural Young's Modulus	214000	psi	1480	MPa	ASTM D790
Tensile Modulus, (1% Secant)	126000	psi	869	MPa	ASTM D638
Tensile Young's Modulus	145000	psi	1000	MPa	ASTM D638
Tensile Stress at Break, (23 °C)	4300	psi	29.6	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	12	%	12	%	ASTM D638
Impact					
Notched Izod Impact Strength, (23 °C)	0.74	ft-lb/in	39	J/m	ASTM D256
Unnotched Impact Strength, (-18 °C)	10	ft-lb/in	550	J/m	ASTM D4812
Hardness					
Shore Hardness, (Shore D, max)	72		72		ASTM D2240
Thermal					
Vicat Softening Temperature	262	°F	128	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	165	°F	74	°C	ASTM D648
Melting Temperature	271.4	°F	133	°C	ASTM D3418
Crystallization Temperature	240.3	°F	115.7	°C	ASTM D3418