

## Technical Data Sheet

### *Alathon H5220*



High Density Polyethylene

#### Product Description

*Alathon H5220* 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.

**Application** Caps & Closures; Containers; Housewares

**Market** Rigid Packaging

**Processing Method** Injection Molding

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
Melt Flow Rate, (190 °C/2.16 kg)	20	g/10 min	20	g/10 min	ASTM D1238
Density, (23 °C)	0.952	g/cm <sup>3</sup>	0.952	g/cm <sup>3</sup>	ASTM D1505
Bulk Density	37-39	lb/ft <sup>3</sup>	593-625	kg/m <sup>3</sup>	ASTM D1895
Spiral Flow	11.6	in	29.4	cm	LYB Method
<b>Mechanical</b>					
Flexural Modulus					
(1% Secant)	167000	psi	1150	MPa	ASTM D790
(2% Secant)	139000	psi	958	MPa	ASTM D790
Flexural Young's Modulus	191000	psi	1320	MPa	ASTM D790
Tensile Modulus, (1% Secant)	152000	psi	1050	MPa	ASTM D638
Tensile Young's Modulus	198000	psi	1370	MPa	ASTM D638
Tensile Stress at Break, (23 °C)	3040	psi	21.0	MPa	ASTM D638
Tensile Stress at Yield, (23 °C)	3730	psi	25.7	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	34	%	34	%	ASTM D638
Tensile Elongation at Yield, (23 °C)	10	%	10	%	ASTM D638
<b>Impact</b>					
Notched Izod Impact Strength, (23 °C)	0.73	ft-lb/in	39	J/m	ASTM D256
Unnotched Impact Strength, (-18 °C)	No Break		No Break		ASTM D4812
<b>Hardness</b>					
Shore Hardness, (Shore D, max)	69		69		ASTM D2240
<b>Thermal</b>					
Vicat Softening Temperature	255	°F	124	°C	ASTM D1525
Low Temperature Brittleness, F <sub>50</sub>	-103	°F	-75	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	156	°F	69	°C	ASTM D648
Melting Temperature	263.1	°F	128.4	°C	ASTM D3418
Crystallization Temperature	237.4	°F	114.1	°C	ASTM D3418