

## Technical Data Sheet

**Alathon H5520**

High Density Polyethylene

**Product Description**

Alathon H5520 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.

<b>Application</b>	Caps & Closures; Containers; Housewares
<b>Market</b>	Rigid Packaging
<b>Processing Method</b>	Injection Molding

<b>Typical Properties</b>	<b>Nominal Value</b>	<b>English Units</b>	<b>Nominal Value</b>	<b>SI Units</b>	<b>Test Method</b>
<b>Physical</b>					
Melt Flow Rate, (190 °C/2.16 kg)	20	g/10 min	20	g/10 min	ASTM D1238
Density, (23 °C)	0.955	g/cm <sup>3</sup>	0.955	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	14.8	in	37.6	cm	LYB Method
<b>Mechanical</b>					
Flexural Modulus					
(1% Secant)	167000	psi	1150	MPa	ASTM D790
(2% Secant)	140000	psi	965	MPa	ASTM D790
Flexural Young's Modulus	181000	psi	1250	MPa	ASTM D790
Tensile Modulus, (1% Secant)	108000	psi	745	MPa	ASTM D638
Tensile Young's Modulus	124000	psi	855	MPa	ASTM D638
Tensile Stress at Yield, (23 °C)	3920	psi	27	MPa	ASTM D638
Tensile Elongation at Yield, (23 °C)	9	%	9	%	ASTM D638
<b>Impact</b>					
Notched Izod Impact Strength, (23 °C)	0.55	ft-lb/in	29	J/m	ASTM D256
Unnotched Impact Strength, (-18 °C)	14	ft-lb/in	750	J/m	ASTM D4812
<b>Hardness</b>					
Shore Hardness, (Shore D, max)	70		70		ASTM D2240
<b>Thermal</b>					
Vicat Softening Temperature	257	°F	125	°C	ASTM D1525
Low Temperature Brittleness, F <sub>50</sub>	-4	°F	-20	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	162	°F	72	°C	ASTM D648
Melting Temperature	268.2	°F	129	°C	ASTM D3418
Crystallization Temperature	241.0	°F	115	°C	ASTM D3418