Technical Data Sheet

Alathon H5650

High Density Polyethylene

Product Description

Alathon H5650 is a multi-purpose high-flow resin that exhibits enhanced processing and thermal stability for fast cycling in multi-cavity stack molds. This resin also exhibits good color and organoleptic properties. Typical applications are rigid food containers and aerosol can overcaps.

Regulatory Status

For regulatory compliance information, see *Alathon* H5650 Product Stewardship Bulletin (PSB) and Safety Data Sheet (SDS).

Status	Commercial: Active
Availability	North America
Application	Caps & Closures; TWIM Food Containers
Market	Consumer Products; 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)	50	g/10 min	50	g/10 min	ASTM D1238
Density, (23 °C)	0.956	g/cm³	0.956	g/cm³	ASTM D1505
Bulk Density	37-39	lb/ft³	593-625	kg/m³	ASTM D1895
Mechanical					
Flexural Modulus					
(1% Secant)	196000	psi	1352	MPa	ASTM D790
(2% Secant)	166000	psi	1145	MPa	ASTM D790
Flexural Young's Modulus	230000	psi	1586	MPa	ASTM D790
Tensile Stress at Break, (23 °C)	3475	psi	24	MPa	ASTM D638
Tensile Stress at Yield, (23 °C)	3740	psi	25.8	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	4.8	%	4.8	%	ASTM D638
Impact					
Notched Izod Impact Strength, (23 °C)	0.5	ft-lb/in	27	J/m	ASTM D256
Hardness					
Shore Hardness, (Shore D, max)	64		64		ASTM D2240
Thermal					
Vicat Softening Temperature	257	°F	125	°C	ASTM D1525
Melting Temperature	267.6	°F	130.9	°C	ASTM D3418
Crystallization Temperature	241	°F	116.1	°C	ASTM D3418

Manufacturer website: https://www.lyondellbasell.com/en/

Notes

Conditions of Tensile Stress and Elongation values are: 50 mm/min, Type IV specimen.

Conditions of Flexural Modulus values are: 0.5 inches/min or 12.5 mm/min.

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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