Alathon® H5220

High Density Polyethylene

LyondellBasell Industries

Message:

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.

General Information			
Features	Good Colorability Good Processability Good Processing Stability Low to No Odor Ultra High Toughness		
Uses	Closures Containers Cups Household Goods		
Processing Method	Extrusion		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.952	g/cm³	ASTM D1505
Apparent Density	0.53 to 0.59	g/cm³	ASTM D1895
Melt Mass-Flow Rate (MFR)	20	g/10 min	ASTM D1238
Spiral Flow	2.94	cm	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness	76		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [1]			ASTM D638
--	1260	MPa	
1% Secant	1000	MPa	
Tensile Strength [2]			ASTM D638
Yield	26.2	MPa	
Break	13.2	MPa	
Tensile Elongation [3]			ASTM D638
Yield	11	%	
Break	71	%	
Flexural Modulus [4]			ASTM D790
--	1250	MPa	
1% Secant	1080	MPa	

2% Secant	903	MPa	
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	38	J/m	ASTM D256
Unnotched Izod Impact (-18°C)	No Break		ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load [5] (0.45 MPa, Unannealed)	73.0	°C	ASTM D648
Brittleness Temperature [6]	< -76.0	°C	ASTM D746
Vicat Softening Temperature	125	°C	ASTM D1525
Peak Melting Temperature	128	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	116	°C	ASTM D3418
Extrusion	**Nominal Value**	**Unit**	
Cylinder Zone 1 Temp.	246	°C	
Cylinder Zone 2 Temp.	246	°C	
Cylinder Zone 3 Temp.	243	°C	
Cylinder Zone 4 Temp.	232	°C	
Cylinder Zone 5 Temp.	232	°C	
Adapter Temperature	246	°C	
NOTE			
1.	Type I, 50 mm/min		
2.	Type IV, 50 mm/min		
3.	Type IV, 50 mm/min		
4.	13 mm/min		
5.	Data are for control and development work and not intended for use in design or predicting performance at elevated or sub-ambient temperatures.		
6.	Low Temperature; F50; Measures the number of inches of flow produced when molten resin is injected into a long, spiral channel (0.0625" insert), at a constant injection pressure of 1000 psi with a melt temperature of 440°F.		

Recommended distributors for this material

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