Alathon® ETP H5057

High Density Polyethylene

LyondellBasell Industries

Message:

ALATHON H5057 is a multi-purpose high-flow resin that exhibits enhanced low temperature impact performance, enhanced processing and thermal stability for fast cycling in multi-cavity stack molds, good color and organoleptic properties. Typical applications are rigid food containers such as cultured dairy product containers, margarine tubs, butter tubs, small frozen food containers and promotional drink cups.

General Information				
Features	Fast Molding Cycle			
	Food Contact Acceptable			
	Good Organoleptic Properties			
	Good Processability			
	Good Thermal Stability			
	High Flow			
	Low Temperature Impact Resistance			
Uses	Containers			
	Cups			
	Food Containers			
Agency Ratings	FDA 21 CFR 177.1520			
Forms	Pellets			
Processing Method	Injection Molding			
Physical	Nominal Value	Unit	Test Method	
Density	0.948	g/cm³	ASTM D1505	
Apparent Density	0.59 to 0.63	g/cm³	ASTM D1895	
Melt Mass-Flow Rate (MFR) (190°C/2.16				
kg)	57	g/10 min	ASTM D1238	
Spiral Flow	53.8	cm	Internal Method	
Hardness	Nominal Value	Unit	Test Method	
Durometer Hardness (Shore D)	69		ASTM D2240	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Modulus ¹			ASTM D638	
	795	MPa		
1% Secant	683	МРа		
Tensile Strength ² (Break)	19.0	МРа	ASTM D638	
Tensile Elongation ³ (Break)	4.1	%	ASTM D638	
Flexural Modulus ⁴			ASTM D790	
	1050	МРа		
1% Secant	972	MPa		

2% Secant	820	MPa	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	21	J/m	ASTM D256
Unnotched Izod Impact (-18°C)	330	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	64.0	°C	ASTM D648
Vicat Softening Temperature	118	°C	ASTM D1525
Peak Melting Temperature	126	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	113	°C	ASTM D3418
Injection	Nominal Value	Unit	
Injection Rear Temperature	Nominal Value 232	Unit °C	
•			
Rear Temperature	232	°C	
Rear Temperature Middle Temperature	232 243	°C °C	
Rear Temperature Middle Temperature Front Temperature	232 243 246	°C °C °C	
Rear Temperature Middle Temperature Front Temperature Nozzle Temperature	232 243 246	°C °C °C	
Rear Temperature Middle Temperature Front Temperature Nozzle Temperature NOTE	232 243 246 246	°C °C °C	
Rear Temperature Middle Temperature Front Temperature Nozzle Temperature NOTE 1.	232 243 246 246 246 Type I, 50 mm/min	°C °C °C	

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