# Alathon® M5040

### High Density Polyethylene Copolymer

#### LyondellBasell Industries

#### Message:

Alathon M5040 is a copolymer with broad molecular weight distribution. This resin exhibits excellent color, low odor, and good processing stability. Typical applications for this resin are specialty applications with high ESCR and applications requiring a balance of ESCR, impact and processibility.

General Information			
Features	Copolymer		
	Food Contact Acceptable		
	Good Impact Resistance		
	Good Processability		
	Good Processing Stability		
	High ESCR (Stress Crack Resist.)		
	Low to No Odor		
	MedWide Molecular Weight Dist	rib.	
Agency Ratings	FDA 21 CFR 177.1520		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	0.950	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16			
kg)	4.0	g/10 min	ASTM D1238
Spiral Flow	28.4	cm	Internal Method
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	71		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength			ASTM D638
Yield <sup>1</sup>	25.6	MPa	
Break	14.1	MPa	
Tensile Elongation <sup>2</sup> (Yield)	13	%	ASTM D638
Flexural Modulus <sup>3</sup>			ASTM D790
1% Secant	1040	MPa	
2% Secant	862	MPa	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45			
MPa, Unannealed)	66.1	°C	ASTM D648
Brittleness Temperature	< -76.1	°C	ASTM D746
Vicat Softening Temperature	124	°C	ASTM D1525
Injection	Nominal Value	Unit	
Rear Temperature	232	°C	

Middle Temperature	243	°C
Front Temperature	246	°C
Nozzle Temperature	246	°C
NOTE		
1.	51 mm/min	
2.	51 mm/min	
3.	13 mm/min	

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#### Recommended distributors for this material

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