Technical Data Sheet

Alathon M5372

High Density Polyethylene

Product Description

Alathon M5372 is a copolymer with narrow molecular weight distribution. This resin provides high impact strength and good processing stability. Typical applications include open head pails and large shipping containers.

Application	Containers; Pails
Market	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)	6.9	g/10 min	6.9	g/10 min	ASTM D1238
Density, (23 °C)	0.953	g/cm³	0.953	g/cm³	ASTM D1505
Bulk Density	37-39	lb/ft³	593-625	kg/m³	ASTM D1895
Spiral Flow	8.8	in	22.4	cm	LYB Method
Mechanical					
Flexural Modulus					
(1% Secant)	172000	psi	1190	MPa	ASTM D790
(2% Secant)	142000	psi	979	MPa	ASTM D790
Flexural Young's Modulus	187000	psi	1290	MPa	ASTM D790
Tensile Modulus, (1% Secant)	111000	psi	765	MPa	ASTM D638
Tensile Young's Modulus	132000	psi	910	MPa	ASTM D638
Tensile Stress at Break, (23 °C)	3170	psi	21.9	MPa	ASTM D638
Tensile Stress at Yield, (23 °C)	3950	psi	27.2	MPa	ASTM D638
Tensile Elongation at Break, (23 °C)	1240	%	1240	%	ASTM D638
Tensile Elongation at Yield, (23 °C)	11	%	11	%	ASTM D638
Impact					
Notched Izod Impact Strength, (23 °C)	0.9	ft-lb/in	48	J/m	ASTM D256
Unnotched Impact Strength, (-18 °C)	No Break		No Break		ASTM D4812
Hardness					
Shore Hardness, (Shore D, max)	70		70		ASTM D2240
Thermal					
Vicat Softening Temperature	261	°F	127	°C	ASTM D1525
Low Temperature Brittleness, F_{50}	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	158	°F	70	°C	ASTM D648
Melting Temperature	268.2	°F	130.7	°C	ASTM D3418
Crystallization Temperature	240.4	°F	115.8	°C	ASTM D3418