

Technical Data Sheet

Alathon L5040

High Density Polyethylene



Product Description

Alathon L5040 is able to incorporate high levels of post-consumer recycle and retain excellent bottle physical properties. This resin provides high ESCR and processing stability. Typical applications include stress crack resistant bottles and extruded pipe and conduit.

Application	Bottles for Industrial Use
Market	Rigid Packaging
Processing Method	Extrusion Blow Molding
Attribute	High ESCR (Environmental Stress Cracking Resistance)

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.40	g/10 min	0.40	g/10 min	ASTM D1238
Density, (23 °C)	0.949	g/cm ³	0.949	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	160000	psi	1100	MPa	ASTM D790
Tensile Strength at Yield	3400	psi	23.4	MPa	ASTM D638
Tensile Elongation at Break	>600	%	>600	%	ASTM D638
Environmental Stress Crack Resistance, F ₅₀ (100% Igepal®, Cond B)	>1000	hr	>1000	hr	ASTM D1693
Impact					
Tensile Impact Strength	188	ft-lb/in ²	395	kJ/m ²	ASTM D1822
Hardness					
Shore Hardness, (Shore D)	63		63		ASTM D2240
Thermal					
Vicat Softening Temperature	262	°F	128	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	<-103	°F	<-75	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	169	°F	76	°C	ASTM D648