

Technical Data Sheet

Alathon L5840

High Density Polyethylene

Product Description

Alathon L5840 is a lightweighting resin that exhibits excellent color, low odor and provides processing stability. Typical applications include personal care, household chemicals, industrial chemicals, detergent and motor oil bottles.

Application	Bottles For Consumer Goods
Market	Rigid Packaging
Processing Method	Extrusion Blow Molding
Attribute	High Stiffness

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
Physical					
Melt Flow Rate, (190 °C/2.16 kg)	0.35	g/10 min	0.35	g/10 min	ASTM D1238
Density, (23 °C)	0.958	g/cm ³	0.958	g/cm ³	ASTM D1505
Mechanical					
Flexural Modulus, (1% Secant)	211000	psi	1460	MPa	ASTM D790
Tensile Strength at Yield	4400	psi	30.3	MPa	ASTM D638
Tensile Elongation at Break	>600	%	>600	%	ASTM D638
Environmental Stress Crack Resistance, F ₅₀ (100% Igepal®, Cond B)	25	hr	25	hr	ASTM D1693
Impact					
Tensile Impact Strength	140	ft-lb/in ²	294	kJ/m ²	ASTM D1822
Hardness					
Shore Hardness, (Shore D)	68		68		ASTM D2240
Thermal					
Vicat Softening Temperature	262	°F	128	°C	ASTM D1525
Low Temperature Brittleness, F ₅₀	<-105	°F	<-76	°C	ASTM D746
Deflection Temperature Under Load, (66 psi, Unannealed)	178	°F	81	°C	ASTM D648