



K50-10-136 Polyethylene Copolymer

K50-10-136 is a high molecular weight, high density polyethylene copolymer for blow molding automotive fuel tanks and under hood reservoirs. It combines excellent processability and outstanding physical performance, particularly environmental stress crack resistance (ESCR) and impact properties.

Typical Properties¹

Resin	Values		ASTM Method
	English Units	SI Units	
Density	—	0.950 g/cc	D4883
Melt Index 190°C/ 21.6 kg	—	9.0 g/10 min	D1238
Compression Molded Samples			
Tensile Strength (2 in/min)			D638
@ Yield	3,800 psi	26.2 MPa	
@ Break	5,400 psi	37.2 MPa	
Elongation (2 in/min)			D638
@ Yield	9.9 %	9.9 %	
@ Break	850 %	850 %	
Flexural Modulus			D790A
Tangent Method	179,000 psi	1230 MPa	
2% Secant Method	133,000 psi	917 MPa	
Notched Izod Impact Strength	8.4 ft-lbf/in	44 kJ/m ²	D256
Hardness (Shore D)	63	63	D2240
Vicat Softening Point	259 F	126 C	D1525
Brittleness Temperature	<-103 F	<-75 C	D746
Heat Deflection Temperature			D648
@ 66 psi (455 kPa)	158 F	70 C	
@ 264 psi (1,820 kPa)	118 F	48 C	
Instrumented Impact			D3763
@ 23 C	Ductile	Ductile	
@ -30 C	Ductile	Ductile	
Environmental Stress Crack Resistance			D1693
Condition A, 10% Igepal, F50 (hrs.)	430	430	
Condition A, 100% Igepal, F50 (hrs.)	>1,000	>1,000	
Condition B, 10% Igepal F50 (hrs.)	340	340	
Condition B, 100% Igepal F50 (hrs.)	>1,000	>1,000	

¹ Typical properties will vary and are not to be used for specification purposes.