

B50-35H-176 Polyethylene Copolymer

B50-35H-176 is a high density polyethylene copolymer developed for blow molding. It is recommended for use in applications which require a combination of high top load strength and good environmental stress crack resistance (ESCR). This material contains a fully FDA sanctioned antistat and meets the Food and Drug Administration requirements of 21CFR 177.1520.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	—	0.951 g/cc	D4883
Melt Index 190°C/2.16 kg	—	0.35 g/10 min	D1238
Compression Molded Samples			
Tensile Strength (2 in/min)			D638
@ Yield	3,700 psi	25.5 MPa	
@ Break	3,000 psi	18.6 MPa	
Elongation (2 in/min)			D638
@ Yield	10%	10%	
@ Break	>600%	>600%	
Flexural Modulus			D790A
Tangent Method	180,000 psi	1,116 MPa	
2% Secant Method	135,000 psi	837 MPa	
Notched Izod Impact Strength	2.75 ft-lbf/in	14.4 kJ/m ²	D256
Hardness (Shore D)	64	64	D2240
Vicat Softening Point	257 F	125 C	D1525
Brittleness Temperature	<-103 F	<-75 C	D746
Heat Deflection Temperature			D648
@ 66 psi (455 kPa)	162 F	72 C	
@ 264 psi (1,820 kPa)	113 F	45 C	
Environmental Stress Crack Resistance			D1693
Condition B, 100% Igepal F50 (hrs.)	40 hrs	40 hrs	

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