

B53-35H-100 Polyethylene Copolymer

B53-35H-100 is a high density polyethylene copolymer developed for injection blow molding. Zinc Stearate is incorporated in the formulation as a release agent. 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 meets the Food and Drug Administration requirements of 21CFR 177.1520.

Typical Properties¹

	Values		ASTM Method
	English Units	SI Units	
Resin			
Density	—	0.955 g/cc	D4883
Melt Index 190°C/2.16 kg	—	0.33 g/10 min	D1238
Compression Molded Samples			
Tensile Strength (2 in/min)			D638
@ Yield	4,000 psi	27 MPa	
@ Break	2,500 psi	17 MPa	
Elongation (2 in/min)			D638
@ Yield	9%	9%	
@ Break	>600%	>600%	
Flexural Modulus			D790A
Tangent Method	210,000 psi	1,450 MPa	
2% Secant Method	150,000 psi	1,035 MPa	
Notched Izod Impact Strength	3.2 ft-lbf/in	16 kJ/m ²	D256
Hardness (Shore D)	64	64	D2240
Vicat Softening Point	261 F	127 C	D1525
Brittleness Temperature	<-103 F	<-75 C	D746
Heat Deflection Temperature			D648
@ 66 psi (455 kPa)	167 F	75 C	
@ 264 psi (1,820 kPa)	118 F	48 C	
Environmental Stress Crack Resistance			D1693
Condition B, 100% Igepal F50 (hrs.)	30 hrs	30 hrs	

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