

HP53-25-155 Polyethylene Copolymer

HP53-25-155 is a high performance high density polyethylene copolymer developed for blow molding. It is recommended for use in continuous extrusion blow molding equipment, specifically where applications require excellent 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	
Density	—	0.952 g/cc	D 4883
Melt Index ²	—	0.22 g/10 min	D 1238
Tensile Strength			
@ Yield (2 in/min)	3700 psi	25.5 MPa	D 638
Elongation			
@ Break (2 in/min)	>700%	>700%	D 638
Flexural Modulus ³	165,000 psi	1138 MPa	D 790
Flexural Modulus ⁴	135,000 psi	931 MPa	D 790
Notched Izod Impact Strength	3.2 ft-lbf/in	0.17 kJ/m	D 256
Tensile Impact Strength	149 ft-lbf/in ²	313 kJ/m ²	D 1822
Hardness (Shore D)	64	64	D 2240
Vicat Softening Point	264 °F	129 °C	D 1525
Brittleness Temperature	<-103 °F	<-75 °C	D 746
Deflection Temperature @66 psi	160 °F	71 °C	D 648

¹ Typical properties will vary within specification limits.

² 190° C/2160 g

³ Tangent-Method

⁴ 2% Secant-Method 1