

HP50-25-153 Polyethylene Copolymer

HP50-25-153 is a high performance high density polyethylene copolymer for use in blow molding applications requiring excellent environmental stress crack resistance (ESCR). This grade contains an antistat additive. This product 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	—	0.22 g/10 min	D1238
Compression Molded Samples			
Tensile Strength (2 in/min)			D638
@ Yield	3,900 psi	26.9 MPa	
@ Break	4,000 psi	27.6 MPa	
Elongation (2 in/min)			D638
@ Yield	10 %	10 %	
@ Break	>700 %	>700 %	
Flexural Modulus			D790A
Tangent Method	165,000 psi	1140 MPa	
2% Secant Method	136,000 psi	940 MPa	
Notched Izod Impact Strength	5.7 ft-lbf/in	12 kJ/m ²	D256
Hardness (Shore D)	68	68	D2240
Vicat Softening Point	257 F	125 C	D1525
Brittleness Temperature	<-103 F	<-75 C	D746
Heat Deflection Temperature			D648
@ 66 psi (455 kPa)	156 F	69 C	
@ 264 psi (1,820 kPa)	113 F	45 C	
Environmental Stress Crack Resistance			D1693
Condition B, 100% Igepal, F50 (hrs.)	200	200	

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