

J50-1000-181 Polyethylene Copolymer

J50-1000-181 is a high density polyethylene copolymer intended for the injection molding of closures for beverages. Because of its high purity and excellent organoleptic properties, this grade is certified as low taste and is intended for packaging that is in direct contact with beverages. Typical applications are caps and closures for the packaging of still water, juice, and tea as well as other injection molded applications where low taste and odor are critical. This resin contains a lubrication package for improved release from the mold and lower application torques on bottles. This material meets the Food and Drug Administration requirements of 21 CFR 177.1520.

Typical Properties¹

	English Units	Values		ASTM Method
			SI Units	
Resin				
Density	—		0.951 g/cc	D4883
Melt Index 190 C/ 2.16 kg	—		11 g/10 min	D1238
Compression Molded Samples				
Tensile Strength (2 in/min)				D638
@ Yield	4,000 psi		28.0 MPa	
@ Break	1,650 psi		11.0 MPa	
Elongation (2 in/min)				D 638
@ Yield	9.5 %		9.5 %	
@ Break	> 800 %		> 800 %	
Flexural Modulus				D790A
Tangent Method	173,000 psi		1,193 MPa	
Notched Izod Impact Strength	0.7 ft-lbf/in		3.7 kJ/m ²	D256
Hardness				D2240
Shore D	66		66	
Vicat Softening Point	253 F		123 C	D1525
Brittleness Temperature	<-94 F		<-70 C	D746
Heat Deflection Temperature				D648
@ 66 psi (455kPa)	163 F		73 C	
Environmental Stress Crack Resistance				D1693
Condition B, 100% Igepal, F50 (hrs.)	4		4	

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