

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 dairy products 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

| | Values | | ASTM Method |
|---------------------------------------|---------------|-----------------------|-------------|
| | English Units | 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.