

HP53-25-155 Polyethylene Copolymer

HP53-25-155 is a high performance high density polyethylene copolymer for use in blow molding applications requiring excellent environmental stress crack resistance (ESCR). This product meets the Food and Drug Administration requirements of 21CFR 177.1520.

Typical Properties¹

| | Values | | ASTM Method |
|---------------------------------------|---------------|------------------------|-------------|
| | English Units | SI Units | |
| Resin | | | |
| Density | — | 0.952 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 | 180,000 psi | 1240 MPa | |
| 2% Secant Method | 136,000 psi | 940 MPa | |
| Notched Izod Impact Strength | 3.0 ft-lbf/in | 15.8 kJ/m ² | D256 |
| Hardness (Shore D) | 65 | 65 | 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.