



DOW Polyethylene 17450N

High Density

- For toys and housewares
- Good low temperature impact strength, gloss and excellent toughness
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a.
Consult the regulations for complete details.

DOW Polyethylene 17450N High Density is a narrow molecular weight distribution copolymer designed to offer low temperature impact strength and gloss with excellent toughness. This resin has good processability over a wide range of molding conditions.

| Physical Properties | Test Method | Values ⁽¹⁾ English (SI) |
|---|---------------------|------------------------------------|
| Resin Properties | | |
| Melt Index (I ₂) @190°C/2.16 kg, g/10 min | ASTM D 1238 | 17 |
| Density, g/ cm ³ | ASTM D 792 | 0.950 |
| DSC Melting Point, °F (°C) | Dow Method | 262 (128) |
| DSC Crystallization Point, °F (°C) | Dow Method | 239 (115) |
| Vicat Softening Point, °F (°C) | ASTM D 1525 | 259 (126) |
| Molded Plaque Properties⁽²⁾ | | |
| Hardness, Shore D | ASTM D 2240 | 62 |
| Flexural Modulus, 2% Secant, psi (MPa) | ASTM D 790 B | 114,000 (993) |
| Tensile Strength at Break, psi (MPa) | ASTM D 638 | 1800 (12) |
| Tensile Strength at Yield, psi (MPa) | ASTM D 638 | 3300 (23) |
| Tensile Elongation at Break, % | ASTM D 638 | 300 |
| Tensile Elongation at Yield, % | ASTM D 638 | 3 |
| Tensile Impact Strength, ft-lb/in. ² (kJ/m ²) | ASTM D 1822, Type S | 140 (294) |
| Environmental Stress Crack Resistance, 122°F (50°C), F ₅₀ , 100% Igepal®, hrs. | ASTM D 1693 | 3 |
| Brittleness Temperature, °F (°C) | ASTM D 746 | <-105 (<-76) |
| Deflection Temperature Under Load @ 66 psi (0.45 MPa), °F (°C) | ASTM D 648 | 149 (65) |

(1) Typical values, not to be construed as specifications. Users should confirm results by their own tests.
 (2) Molded and tested in accordance with ASTM D4976.