

ICELENE HI4451

High Density Polyethylene Injection Molding

PRODUCT DESCRIPTION

ICELENE HI4451 is a certified prime resin and is intended for use in a broad range of injection molding applications such as housewares, toys, food containers and pails. This resin has been designed to provide an excellent balance of toughness, environmental stress crack resistance and processability. HI4451 complies with US FDA 21 CFR 117.1520 (c) 3.2a

| Properties* | Test Method | SI Units | | English | |
|---|-------------|---------------|-------------------|---------------|-----------------------|
| | | Typical Value | Unit | Typical Value | Unit |
| Melt Flow Index (190 °C/2.16 kg) | ASTM D1238 | 44 | g/10 min. | 44 | g/10 min |
| Density (23°C) | ASTM D1505 | 0.951 | g/cm ³ | 0.951 | g/cm ³ |
| Flexural Modulus 2% Secant | ASTM D790B | 1020 | MPa | 148000 | psi |
| Tensile Strength at Break | ASTM D638 | 26.9 | MPa | 3900 | psi |
| Tensile Impact Strength | ASTM D1822 | 84.1 | KJ/m ² | 40 | ft-lb/in ² |
| Tensile Strength at Yield | ASTM D638 | 26.9 | MPa | 3900 | psi |
| Shore Hardness (Shore D) | ASTM D2240 | 64 | | 64 | |
| Deflection Temperature Under Load 66 psi (0.45 Mpa), unannealed | ASTM D648 | 71.1 | °C | 160 | °F |
| Brittleness Temperature | ASTM D746 | -72.2 | °C | -98 | °F |
| Vicat Softening Temperature | ASTM D1525 | 123 | °C | 253 | °F |

The nominal properties reported herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

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