

Technical Data Sheet

Icorene 1505 NAT 0000

Polyethylene, Crosslinked

Product Description

Icorene 1505 is a crosslinkable natural high density polyethylene specifically developed for rotational moulding. This grade is particularly suitable for use in applications requiring exceptional impact resistance at low temperature, toughness and excellent ESCR such as fuel tanks. The specially developed cross linking system used has lower odor than typical materials of this type and allows for perfect moulding of the part - free of pinholes.

| | |
|--------------------------|--|
| Processing Method | Rotomolding |
| Attribute | Crosslinkable; Good Processability; High ESCR (Environmental Stress Cracking Resistance); High Impact Resistance; UV Resistant |
| Forms | Powder |
| Appearance | Natural Color; Unspecified Color |
| Additive | UV Stabilizer |
| Application | Industrial Containers |

| Typical Properties | Nominal Value | Units | Test Method |
|---|---------------|-------------------|-------------|
| Physical | | | |
| Density | 0.943 | g/cm ³ | ASTM D1505 |
| Mechanical | | | |
| Tensile Strength at Yield | 21 | MPa | ASTM D638 |
| Environmental Stress Crack Resistance | | | |
| (Condition B, Rotational Molded, F50, 10% Igepal, 50 °C) | >1000 | hr | ASTM D1693 |
| (Condition B, Rotational Molded, F50, 100% Igepal, 50 °C) | >1000 | hr | ASTM D1693 |
| Flexural Modulus | 700 | MPa | ASTM D790 |
| Tensile Elongation at Break | 600 | % | ASTM D638 |
| Impact | | | |
| Drop Impact Resistance | | | |
| (-20 °C, Internal Method) | >255 | J/cm | ASTM D4226 |
| (-40 °C, Rotomoulding) | >320 | J/cm | ARM |
| Hardness | | | |
| Durometer Hardness, (Shore D) | 65 | | ASTM D2240 |
| Thermal | | | |
| Vicat Softening Temperature, (A (10N), 50 °C/h) | 127 | °C | ISO 306 |
| Deflection Temperature Under Load Unannealed (1.80 MPa) | 43 | °C | ISO 75-2/A |