

Lupolen 4021 K RM Black

Polyethylene, Medium Density

Product Description

Lupolen 4021 K RM Black is the black compound version of the new generation hexene linear medium-density polyethylene LP 4021 K RM for rotational molding. Typical customer applications include large tanks including underground and infrastructure applications. The product exhibits outstanding ESCR combined with high impact at low temperatures and improved UV resistance. **Lupolen 4021 K RM Black** is a fully UV-stabilized and pelletized polymer. Tests have shown that this material is resisting against the harmful effect of biodiesel fuel.**

It is not intended for use in medical and pharmaceutical applications.

** Resistance is based on our latest patented technology

Product Characteristics

| | |
|--------------------------------------|---|
| Test Method used | ISO |
| Processing Methods | Rotational Molding |
| Features | High ESCR (Environmental Stress Cracking Resistance), Low Temperature Impact Resistance, Good Processability, Low Warpage |
| Typical Customer Applications | Fuel Tanks, Tanks, Industrial |

| Typical Properties | Method | Value | Unit |
|--|---------------|---------|-------------------|
| Physical | | | |
| Density <i>Note: at 23°C</i> | ISO 1183 | 0.9395* | g/cm ³ |
| Melt flow rate (190/2.16) | ISO 1133 | 4,0 | g/10 min |
| Mechanical | | | |
| ESCR <i>Note: Condition B</i> | ASTM D 1693 | > 1000 | h |
| Tensile Stress at Yield | ISO 527-1, -2 | 19 | MPa |
| Tensile Strain at Yield | ISO 527-1, -2 | 9 | % |
| Tensile Impact Strength <i>Note: Notched, type 1, method A, -30 °C</i> <i>Note: Notched, type 1, method A, 23 °C</i> | ISO 8256 | 120 | kJ/m ² |
| | | 265 | kJ/m ² |
| | | | |
| Tensile Strain at Break | ISO 527-1, -3 | >450 | % |
| Tensile modulus | ISO 527 | 750 | MPa |
| Thermal | | | |
| Vicat softening temperature A/50 | ISO 306 | 114 | |
| Additional Information | | | |
| Additional Properties | | | |
| <i>Note:</i> | | | |
| FNCT (Full notch creep test) acc. ISO 16770 (6.0 MPa, 2% Arkopal N100, 50°C): 50 h | | | |

Additional Properties

Note: * Density value is given of the base polymer. Final density of the black product is higher due to pigmentation.

Processing: Recommended range for PIAT (Peak Internal Air Temperature) is 180 - 210 °C. PIAT should not exceed 225 °C.

Notes

Typical properties; not to be construed as specifications.

