

# Lupolen 3621 M RM Black Powder

Medium Density Polyethylene

LyondellBasell Industries

## Message:

Lupolen 3621 M RM Black Powder is the black compound version of the new generation hexene linear medium-density polyethylene LP 3621 M RM Black for rotational molding of a variety of articles. The product exhibits excellent ESCR, high impact strength at low temperatures and improved UV resistance. Lupolen 3621 M RM Black Powder is a fully UV-stabilized polymer. The product is delivered as a powder. 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

| General Information                       |  |                   |             |
|---|--|-------------------|-------------|
| Features                                  | Low warpage                            |                   |             |
|   | High ESCR (Stress Cracking Resistance) |                   |             |
|   | Impact resistance, high                |                   |             |
|   | Good UV resistance                     |                   |             |
|   | Workability, good                      |                   |             |
|   | Low temperature impact resistance      |                   |             |
| Uses                                      | Engineering accessories                |                   |             |
|   | Industrial application                 |                   |             |
|   | Fuel Tank                              |                   |             |
| Appearance                                | Black                                  |                   |             |
| Forms                                     | Powder                                 |                   |             |
| Processing Method                         | rotomolding                            |                   |             |
| Physical                                  | Nominal Value                          | Unit              | Test Method |
| Density <sup>1</sup> (23°C)               | 0.936                                  | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 7.5                                    | g/10 min          | ISO 1133    |
| Environmental Stress-Cracking Resistance  | > 1000                                 | hr                | ASTM D1693B |
| Full Notch Creep Test <sup>2</sup> (50°C) | 15.0                                   | hr                | ISO 16770   |
| Mechanical                                | Nominal Value                          | Unit              | Test Method |
| Tensile Modulus                           | 700                                    | MPa               | ISO 527-2   |
| Tensile Stress (Yield)                    | 17.0                                   | MPa               | ISO 527-2   |
| Tensile Strain (Yield)                    | 10                                     | %                 | ISO 527-2   |
| Films                                     | Nominal Value                          | Unit              | Test Method |
| Tensile Elongation (Break)                | > 450                                  | %                 | ISO 527-3   |
| Impact                                    | Nominal Value                          | Unit              | Test Method |
| Tensile Impact Strength                   |  |                   | ISO 8256/1A |
| -30°C                                     | 104                                    | kJ/m <sup>2</sup> | ISO 8256/1A |
| 23°C                                      | 213                                    | kJ/m <sup>2</sup> | ISO 8256/1A |

| Thermal  | Nominal Value | Unit | Test Method |
|--|---------------|------|-------------|
| Vicat Softening Temperature  | 113           | °C   | ISO 306/A50 |
| Extrusion  | Nominal Value | Unit |             |
| Melt Temperature   | 180 - 210     | °C   |             |
| Extrusion instructions   |               |      |             |
| Processing: Recommended range for PIAT (Peak Internal Air Temperature) is 180 - 210 °C. PIAT should not exceed 225 °C. |               |      |             |
| NOTE   |               |      |             |

1. Density value is given of the base polymer. Final density of the black product is higher due to pigmentation.
2. 6.0 MPa, 2% Arkopal N100

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