# Braskem PE ML3601U

Linear Low Density Polyethylene

Braskem

## Message:

The resin ML3601U is a Linear Low Density Polyethylene, 1-hexene copolymer, indicated for rotational molding. It presents excellent environmental stress cracking resistance and high impact strength. This resin is ideally suited for applications that require a higher mechanical performance and coog chemical resistance.
Applications:
Large tanks for water and chemical products storage, underground tanks, septic tanks and manholes.

| General Information | | | |
|---|---|---|---|
| Additive | Antioxidation<br>Long-term UV-8 stabilizer | | |
| Features | High ESCR (Stress Cracking Resistance)<br>hexene comonomer<br>Antioxidation<br>Impact resistance, high<br>Good UV resistance | | |
| Uses | Water tank | | |
| Agency Ratings | FDA 21 CFR 177.1520 | | |
| Forms | Particle | | |
| Processing Method | rotomolding | | |
| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
| Density | 0.939 | g/cm³ | ASTM D1505 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 3.3 | g/10 min | ASTM D1238 |
| Environmental Stress-Cracking Resistance | | | ASTM D1693 |
| 50°C, 2.00mm, 10% Igepal, molded, F50 | 145 | hr | ASTM D1693 |
| 50°C, 2.00mm, 100% Igepal, molded, F50 | > 1000 | hr | ASTM D1693 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | | | ASTM D638 |
| Yield, molding | 21.0 | MPa | ASTM D638 |
| Fracture, molding | 30.1 | MPa | ASTM D638 |
| Tensile Elongation | | | ASTM D638 |
| Yield, molding | 14 | % | ASTM D638 |
| Fracture, molding | > 1000 | % | ASTM D638 |
| Flexural Modulus - 1% Secant (Compression Molded) | 760 | MPa | ASTM D790 |
| Fundamentals of Hydrostatic Design | 8.62 | MPa | ASTM D2837 |
| Oxidation Induction Time | > 100 | min | ASTM D3895 |

| Impact | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Impact Strength | | | ARM |
| -40°C, 3.17mm, rotational molding | 82 | J | ARM |
| -40°C, 6.34mm, rotational molding | 228 | J | ARM |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, unannealed, molded | 60.0 | °C | ASTM D648 |
| 1.8 MPa, unannealed, molded | 41.0 | °C | ASTM D648 |
| Peak Melting Temperature | 127 | °C | ASTM D3418 |

**Additional Information**

Rotomolding Oven Temperature: 250 to 350°C



## Recommended distributors for this material

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