

ExxonMobil LLDPE

LL 8446.21

Rotational Molding Resin

Product Description

LL 8446.21 is a linear low density butene copolymer designed to offer excellent processability, whiteness, and fast grinding rate. This UV stabilized resin is ideally suited for applications that require excellent dimensional control and low warpage.

Applications

- Toys
- Consumer articles
- General purpose articles
- Tanks

Additive Package

Form

Stabilizer

LL 8446.21	Granules (Pellet)	Long Term UV 8 Stabilization
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Resin Properties

Test Based On³

Typical Value / Unit

Melt Index	ASTM D-1238 or ISO 1133	5.0 g/10 min.
Density	ASTM D-4883 or ISO 1183	0.936 g/cm ³
Melting Point	ASTM D-3418	125 (257) °C (°F)
Crystallization Point	ASTM D-3418	110 (230) °C (°F)

Molded Properties¹

Tensile Strength at Yield ²	ASTM D-638 or ISO 527-2/50	17 (2450) MPa (psi)
Tensile Yield Elongation	ASTM D-638	17 %
	ISO 527-2/50	14 %
Flexural Modulus	ASTM D-790 ,1% Secant, Procedure B	750 (109,000) MPa (psi)
	ISO 178, 0.25-0.05%, 2 mm/minute	700 (102,000) MPa (psi)
Impact Strength @ -40°C	ARM	J (ft-lb _f)
1/8" (3.17 mm) thickness		68 (50)
1/4" (6.35 mm) thickness		177 (130)
Environmental Stress Crack	ASTM D-1693 Condition A, 100/10% Igepal	36/24 Hr
Resistance (ESCR), F ₅₀	ASTM D-1693, 2mm thickn. , 10% Igepal	130
Deflection Temperature		
@ 66 psi (455 Kpa)	ASTM D-648 or ISO 75-2Be	52 (126) °C (°F)
@ 264 psi (1820 Kpa)	ASTM D-648 or ISO 75-2Ae	36 (97) °C (°F)

1. All physical properties were measured on 3 mm. rotomolded samples unless a different value is shown, except for ESCR, which was measured on compression molded samples.
2. Tensile testing was conducted at a crosshead speed of 50 mm/min. The tensile strength reported refers to the maximum stress reached during the test.
3. Test procedures may be modified to accommodate operating conditions or facility limitations.

LL 8446.21 polymer grade can - in principle - be used in food contact applications in various EU Member States and in the USA (FDA). Migration or use limitations may apply. Please contact your ExxonMobil Chemical representative for more detailed information and/or actual compliance certification documents for the specific grade of interest.

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