ExxonMobil

Linear Low Density Polyethylene

LL-8300 Series Rotational Molding Grades

Description

ExxonMobil LL-8300 series are linear medium density polyethylene resins that provide outstanding environmental stress crack resistance. They are well suited for the rotomolding of parts that require a combination of good flow characteristics, stiffness and good low temperature toughness.

Typical Applications

- Chemical storage bins
- Rotomolded pallets
- Agricultural tank inner liners
- Potable water tanks

LL-8302 Base resin with oxidation protection only in pellet form.

LL-8360 Fully formulated long term UV stability package in pellet form.

LL-8361 Fully formulated long term UV stability package in ground form.

Resin Properties	Test Based On[4]	Unit	Typical Value[1]
Melt Index	ASTM D-1238	g/10 min.	5.2
Density	ASTM D-4883	g/cm^3	0.932
Melting Point	ExxonMobil Method	°C	125
Molded Properties[2]			
Yield Tensile Strength[3]	ASTM D-638	MPa (psi)	15.9 (2300)
Elongation @ Break	ASTM D-638	%	765
Flexural Modulus, 1% Secant	ASTM D-790	MPa (psi)	503 (73,000)
Impact Strength Max. Force @ - 40°C, 1/4" thickness	ARM	ft-lbs	155
Environmental Stress Crack Resistance, F_{50} Condition B	ASTM D-1693	hr	> 500
Heat Distortion Temperature	ASTM D-648	°C	
66 psi			49
264 psi			37

1. Values given above are typical and should not be used as specification limits.
2. All physical properties were measured on rotomolded specimens.
3. Tensile testing was conducted at a crosshead speed of 50 mm/min. The tensile strength reported refers to the maximum load reached during the test
4. ASTM test procedures may be modified to accommodate operating conditions or facility limitations

Food Packaging

LL-8300 series grades are olefin copolymers which comply with FDA Regulations 21 CFR 177.1520 (c) 3.1 and 3.2, and may be used in articles which are intended to contact food. Health and Welfare Canada has no objection to the use of these resins in food packaging. The finished article is subject to certain additive-related volume (5 U.S. gallon minimum) and temperature (Maximum: 150°F (U.S.) or 120°F (Canada)) restrictions. Contact your ExxonMobil representative to review specific applications.

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