

LLHR-538U Medium Density Polyethylene

MELT - 5.0

DENSITY - 0.938

LLHR-538U is a certified prime grade UV Stabilized Ethylene-Hexene Copolymer designed for high performance outdoor exposure Rotomolded applications. **LLHR-538U** is melt compounded for uniform dispersion of additives and UV stabilizer, supplied in pellet form of natural color. **LLHR-538U** featured very good moldability, outstanding long-term outdoor exposure, and superior combination of ESCR, low temperature impact strength, toughness and stiffness. Version **LLHR-538U** is available in form of 35 mesh powder ground from pellets. **LLHR-538U** complies with FDA regulation 21CFR 177.1520(c) 3.1(a) + 3.2(a) and international regulations concerning the use of Polyethylene in contact with food articles.

Features:

- Good impact resistance
- Good moldability
- Good UV resistance
- High ESCR (Stress Crack Resist.)
- Low temperature impact resistance
- Good stiffness
- Good toughness

Typical Applications:

- Free-standing portable water tanks
- Small storage tanks
- Waste bins
- Playground equipment
- Toys

PROPERTIES	ASTM	UNIT	VALUES
PHYSICAL			
Density	D1505	g/cm ³	0.938
Melt Flow Rate (190°C, 2.16kg)	D1238	g/10 min	5.0
Env. Stress Cracking Resistance (122°F, 0.0689 in, 100% Igepal, compression molded, F50) Notched Bent Strip	D1693	hr	>1000
MECHANICAL (Compression Mold)			
Tensile Strength (Yield, 2.0 in/min)	D638	psi	2470
Tensile Elongation (Break, 2.0 in/min)	D638	%	16
Flexural Modulus - 1% Secant (0.051 in/min)	D790	psi	106k
Low Temperature Impact (-40 °F)	Internal	ft-lb	56.8
HDT (66psi, Unannealed)	D648	°F	140
Vicat Softening Temperature	D1525	°F	244