# CERTENE™ LLHR-735U

## Medium Density Polyethylene

## Muehlstein

## Message:

LLHR-735U is a certified prime grade UV Stabilized Ethylene-Hexene Copolymer designed for high performance outdoor exposure Rotomolded applications and injection molding. LLHR-735U is melt compounded for uniform dispersion of additives and UV stabilizer. LLHR-735U features very good moldability and aesthetic, outstanding long-term outdoor exposure, color retention, and superior combination of ESCR, low temperature impact strength, toughness and stiffness, as well as, low warpage and good mechanical properties. LLHR-735U applications include small storage, intermediate bulk container, general purpose custom molding, agriculture storage tank, water tanks, marine part and spray tanks up to 100 gal, vegetable growing trays, liners for containers and automotive doors, tote bins, light globes, and toys. LLHR-735UP is supplied as a consistent 35 mesh powder ground from pellets. LLHR-735U complies with FDA regulation 21CFR 177.1520 (c) 3.1 (a) + 3.2 (a) and most international regulation concerning the use of Polyethylene in contact with food articles, such as: Canadian HPFB No Objection, EU No 10/2011, NSF International NSF/ANSI Std 61(sec 4 & 5).

General Information	
Additive	UV stabilizer
Features	UV Stabilized
	Rigid, good
	High ESCR (Stress Cracking Resistance)
	Copolymer
	Bending resistance
	Impact resistance, good
	Good formability
	Low temperature impact resistance
	Good toughness
	Compliance of Food Exposure
	Good appearance
Uses	Lining
	Ship application
	Agricultural water tank
	Container
	Outdoor application
	Water tank
	Toys
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a
	FDA 21 CFR 177.1520(c) 3.2a
	HPFB (Canada) No Objection
	NSF 61
	Europe No 10/2011
Forms	Powder
-	

#### Processing Method

#### rotomolding

#### Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.935	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16			
kg)	7.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			
50°C, 10% Igepal, F50	> 417	hr	ASTM D1693
50°C, 100% Igepal, F50	> 1000	hr	ASTM D1693A
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (Yield)	19.0	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	17	%	ASTM D638
Flexural Modulus - 1% Secant <sup>3</sup>	605	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Impact Strength			ARM
-40°C, 3.18mm, rotational molding	72	J	ARM
-40°C, 6.35mm, rotational molding	228	J	ARM
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45			
MPa, Unannealed)	51.0	°C	ASTM D648
Melting Temperature	126	°C	DSC
Additional Information			
Test made on injection molded Type 1 ter	nsion test specimen according to	ASTM D 4976.	
NOTE			
1.	51 mm/min		
2.	51 mm/min		
3.	1.3 mm/min		

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