

# UNITHENE® LH503

High Density Polyethylene

USI Corporation

## Message:

UNITHENE LH503 is a high density polyethylene resin (HDPE) especially suitable for injection & extrusion molding. Well designed molecular weight and density make UNITHENE LH503 possess excellent ESCR, stiffness, and impact strength. UNITHENE LH503 is specially suitable for mineral water caps, molding pig beds, sport utensils, garden furniture leisure items, baby cars, transportation crates, bicycle seats and pallets. It also can be used for extruding thin sheets. UNITHENE LH503 can be easily pigmented to any color by either dry blending or extrusion homogenization of the pigment into resin.

General Information			
Features	High ESCR (Stress Cracking Resistance)		
	High density		
	Impact resistance, high		
	Good coloring		
Uses	Industrial application		
	Shield		
	Sporting goods		
	Loading box		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.956	g/cm <sup>3</sup>	ASTM D792
Melt Mass-Flow Rate (MFR)	4.1	g/10 min	ASTM D1238
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	68		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus - 1% Secant (Injection Molded)	834	MPa	ASTM D638
Tensile Strength			ASTM D638
Yield	24.5	MPa	ASTM D638
Fracture	27.5	MPa	ASTM D638
Tensile Elongation (Break)	600	%	ASTM D638
Apparent Bending Modulus	932	MPa	ASTM D747
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	120	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature	< -76.0	°C	ASTM D746
Vicat Softening Temperature	125	°C	ASTM D1525

Peak Melting Temperature	130	°C	ASTM D3418
Additional Information			

Torsional Stiffness, ASTM D1043: 10500 kg/cm<sup>2</sup>

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#### Recommended distributors for this material

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