# CERTENE™ HI-960

### High Density Polyethylene

#### Muehlstein

#### Message:

HI-960 is a certified prime homopolymer designed for molding applications requiring high warpage resistance and good balance of mechanical properties. HI-960 features easy processability, very good stiffness, good impact strength, high surface gloss, and excellent dimensional stability. HI-960 applications include crates, waste bins, pails, housewares, tote bins, fruit and vegetable trays, and structural foam. HI-960 recommended processing temperature is 210 to 240°C. with mmold @ 20 to 40°C. HI-960 is not UV stabilized.

General Information				
Features	Good dimensional stability			
	Rigid, good			
	Highlight			
	High density			
	Homopolymer			
	Bending resistance			
	Impact resistance, good			
	Workability, good			
	Excellent appearance			
Uses	Structural Foam			
	Household goods			
	Barrel			
	Bracket tray			
	Loading box			
Forms	Particle			
Processing Method	Injection molding			
Physical	Nominal Value	Unit	Test Method	
Density	0.960	g/cm³	ASTM D1505	
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	9.0	g/10 min	ASTM D1238	
Environmental Stress-Cracking Resistance	5.0	9/10/11111	ASTIVI D 1230	
(50°C, 100% Igepal, Compression Molded,				
F50)	5.00	hr	ASTM D1693	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength <sup>1</sup> (Yield, Compression Molded)	29.6	MPa	ASTM D638	
Tensile Elongation <sup>2</sup> (Break, Compression Molded)	1000	%	ASTM D638	
Flexural Modulus - 1% Secant <sup>3</sup> (Compression Molded)	1520	MPa	ASTM D790	
Impact	Nominal Value	Unit	Test Method	

Tensile Impact Strength (Compressio	n			
Molded)	60.9	kJ/m²	ASTM D1822	
Thermal	Nominal Value	Unit	Test Method	
Deflection Temperature Under Load	(0.45			
MPa, Unannealed)	79.0	°C	ASTM D648	
Brittleness Temperature	-80.0	°C	ASTM D746	
Vicat Softening Temperature	124	°C	ASTM D1525	
Additional Information				
This Specimen was compression molded and was tested according to ASTM D1928 Procedure C.				
Injection	Nominal Value	Unit		
Processing (Melt) Temp	210 - 240	°C		
Mold Temperature	20.0 - 40.0	°C		
NOTE				
1.	50 mm/min			
2.	50 mm/min			
3.	1.3 mm/min			

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#### Recommended distributors for this material

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