

# CERTENE™ HI-1252

High Density Polyethylene  
Muehlstein

Message:

HI-1252 is a certified prime copolymer designed for molding applications requiring good toughness and moderate stiffness. HI-1252 features medium flow, easy processability, good Environmental Stress Cracking Resistance (ESCR,) good impact strength, and good warpage resistance. HI-1252 applications include housewares, medium size food pails, buckets, over-caps and closures, tote boxes, toys, ink and photo-film cartridges. HI-1252 recommended processing temperature is 210 to 230°C. with mold @ 20 to 40°C.

General Information			
Features	Rigid, good		
	High ESCR (Stress Cracking Resistance)		
	High density		
	Copolymer		
	Bending resistance		
	Impact resistance, good		
	Workability, good		
	Medium liquidity		
	Good toughness		
Uses	Shield		
	Household goods		
	Barrel		
	Toys		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	0.952	g/cm <sup>3</sup>	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (50°C, 100% Igepal, Compression Molded, F50)	4.00	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength <sup>1</sup> (Yield, Compression Molded)	27.6	MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break, Compression Molded)	700	%	ASTM D638
Flexural Modulus - 1% Secant <sup>3</sup> (Compression Molded)	1210	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Tensile Impact Strength (Compression Molded)	58.8	kJ/m <sup>2</sup>	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	70.0	°C	ASTM D648
Brittleness Temperature	-90.0	°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 - 230	°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

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

