CERTENE™ HI-1252

Channel Prime Alliance - High Density Polyethylene

Sunday, November 17, 2019

General Information

Product Description

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			
Material Status	• Commercial: Active		
Availability	• North America		
Features	• Copolymer • Good Impact Resistance • Good Processability	• Good Stiffness • Good Toughness • High Density	• High ESCR (Stress Crack Resist.) • Medium Flow • Warp Resistant
Uses	• Caps • Household Goods	• Pails • Toys	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	0.952	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	12	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
50°C, 100% Igepal, Compression Molded, F50	4.00	hr	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield, Compression Molded)	27.6	MPa	ASTM D638
Tensile Elongation [2] (Break, Compression Molded)	700	%	ASTM D638
Flexural Modulus - 1% Secant [3] (Compression Molded)	1210	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength (Compression Molded)	58.8	kJ/m²	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	70.0	°C	
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.

Processing Information

Injection	Nominal Value	Unit
Processing (Melt) Temp	210 to 230	°C
Mold Temperature	20 to 40	°C

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Notes

[1] Typical properties: these are not to be construed as specifications.

[2] 50 mm/min

[3] 1.3 mm/min