

CERTENE™ HPB-0354
Muehlstein - Polyethylene, High Density

Monday, May 07, 2007

General Information

Product Description

HPB-0354 is a certified prime Phillips Process blow molding copolymer designed to meet end-use requirements of containers for packaging of Household Industrial Chemicals (HIC). HPB-0354 features medium swell, easy and consistent processability in conventional continuous or intermittent extrusion equipment, and excellent balance of bottle ESCR, Impact strength and Stiffness. Applications include medium size containers for detergents, bleach, antifreeze, motor oil and ice chests. HPB-0354 recommended processing temperature is 160 to 180°C., with mold at 10 to 30°C.

General

Material Status	• Commercial: Active	
Availability	• North America	
Test Standards Available	• ASTM	
Features	<ul style="list-style-type: none"> • Chemical Resistance, Good • Copolymer • Density, High • Detergent Resistant 	<ul style="list-style-type: none"> • ESCR, High (Stress Crack Resist.) • Impact Resistance, High • Processability, Good • Stiffness, High
Uses	<ul style="list-style-type: none"> • Containers, Industrial • Packaging 	
Forms	• Pellets	
Processing Method	• Blow Molding	

ASTM and ISO Properties ¹

Physical	Nominal Value Unit	Test Method
Density	0.954 g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.3 g/10 min	ASTM D1238
Enviro. Stress Crack Res (Compression Molded, F50, 100% Igepal, 50 °C)	50.0 hr	ASTM D1693
Mechanical	Nominal Value Unit	Test Method
Tensile Strength @ Yield (Compression Molded) ²	26.9 MPa	ASTM D638
Tensile Elongation @ Brk (Compression Molded) ²	700 %	ASTM D638
Flexural Modulus (Compression Molded) ³	1% Secant: 1170 MPa	ASTM D790
Impact	Nominal Value Unit	Test Method
Tensile Impact Strength (Compression Molded)	206 kJ/m ²	ASTM D1822
Thermal	Nominal Value Unit	Test Method
DTUL @66psi - Unannealed	74.0 °C	ASTM D648
Brittle Temperature	-90.0 °C	ASTM D746
Vicat Softening Point	127 °C	ASTM D1525

Additional Properties

This Specimen was compression molded and was tested according to ASTM D1928 Procedure C.

Processing Information

Injection	Nominal Value Unit
Mold Temperature	10.0 to 30.0 °C
Extrusion	Nominal Value Unit
Melt Temperature	160 to 180 °C

Notes

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

² 50 mm/min

³ 1.3 mm/min

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