

CERTENE™ HPB-0354

Channel Prime Alliance - High Density Polyethylene

Sunday, November 17, 2019

General Information

Product Description

HPB-0354 is a certified prime grade 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. HPB-0354 complies with FDA regulation 21CFR 177.1520 (c) 3.1 (a) + 3.2 (a) and with most international regulations concerning the use of Polyethylene in contact with food articles.

General

Material Status	• Commercial: Active
Availability	• Latin America • North America
Features	• Chemical Resistant • Copolymer • Detergent Resistant • Good Processability • High Density • High ESCR (Stress Crack Resist.) • High Impact Resistance • High Stiffness
Uses	• Industrial Containers • Packaging
Forms	• Pellets
Processing Method	• Blow Molding

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density	0.954	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	0.35	g/10 min	
190°C/21.6 kg	30	g/10 min	
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693
50°C, 1.75 mm, 100% Igepal, Compression Molded, F50	50.0	hr	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ² (Yield, Compression Molded)	26.9	MPa	ASTM D638
Tensile Elongation ² (Break, Compression Molded)	> 700	%	ASTM D638
Flexural Modulus - 1% Secant ³ (Compression Molded)	1340	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
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	74.0	°C	
Brittleness Temperature	< -90.0	°C	ASTM D746
Vicat Softening Temperature	127	°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
Mold Temperature	10 to 30	°C

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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