

CERTENE™ HPB-0760

Channel Prime Alliance - High Density Polyethylene

Sunday, November 17, 2019

General Information

Product Description

HPB-0760 is a certified prime Phillips Process designed for BLOW MOLDING of containers for packaging of non-aggressive chemicals. HPB-0760 features low to medium swell, easy processability in conventional continuous extrusion equipment, good ESCR, good Impact strength, high Stiffness, improved Barrier, and low Odor and Taste. HPB-0760 applications include small to medium size thin wall bottle for milk, water and juices, wide mouth containers for body powders, and extrusion of sheet and profiles. HPB-0760 processing temperature is 140 to 165°C., with mold 10 to 30°C. HPB-0760 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	• Barrier Resin • Good Impact Resistance • Good Processability	• High Density • High ESCR (Stress Crack Resist.) • High Stiffness	• Low Odor • Low to No Taste
Uses	• Food Containers • Packaging	• Profiles • Sheet	• Thin-walled Containers
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.1a	• FDA 21 CFR 177.1520(c) 3.2a	
Forms	• Pellets		
Processing Method	• Blow Molding	• Extrusion	

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.960	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.70	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ² 50°C, 1.75 mm, 100% Igepal, Compression Molded, F50	15.0	hr	ASTM D1693B
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ³ (Yield, Compression Molded)	31.0	MPa	ASTM D638
Tensile Elongation ³ (Break, Compression Molded)	710	%	ASTM D638
Flexural Modulus - 1% Secant ⁴ (Compression Molded)	1450	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength (Compression Molded)	189	kJ/m ²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed	80.0	°C	ASTM D648
Brittleness Temperature	< -75.0	°C	ASTM D746
Vicat Softening Temperature	128	°C	ASTM D1525

Processing Information

Injection	Nominal Value	Unit
Mold Temperature	10 to 30	°C
Extrusion	Nominal Value	Unit
Melt Temperature	140 to 165	°C

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Notes

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

² Notched bent strip

³ 50 mm/min

⁴ 1.3 mm/min