CERTENE™ HGB-0454A

High Density Polyethylene

Muehlstein

Message:

HGB-0454A is a certified prime Gas Phase process BLOW MOLDING copolymer designed to meet end-use requirements of containers for packaging of Household Industrial Chemicals (HIC). HGB-0454A 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. HGB-0454A recommended processing temperature is 160 to 180°C., with mold at 10 to 30°C. HGB-0454A contains no slip and no antiblock. HGB-0454A conforms with FDA regulation 21CFR 177.1520 (c) 3.2(a) and most international regulations concerning polyethylene use in contact with food articles.

General Information			
Features	Rigidity, high High ESCR (Stress Cracking Resistance) Copolymer Impact resistance, good Workability, good Good chemical resistance Compliance of Food Exposure		
Uses	Blown Containers Blow molding applications Container		
Agency Ratings	FDA 21 CFR 177.1520(c) 3.2a		
Forms	Particle		
Processing Method	Blow molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	0.954	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.40	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance [1] (50°C, 1.75 mm, 100% Igepal, Compression Molded, F50)	60.0	hr	ASTM D1693B
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield, Compression Molded)	27.0	MPa	ASTM D638
Tensile Elongation [3] (Break, Compression Molded)	> 700	%	ASTM D638
Flexural Modulus - 1% Secant [4] (Compression Molded)	1170	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength (Compression Molded)	205	kJ/m²	ASTM D1822

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	74.0	°C	ASTM D648
Brittleness Temperature	< -90.0	°C	ASTM D746
Vicat Softening Temperature	127	°C	ASTM D1525

Additional Information	Nominal Value	Unit
Blow Molding Mold Temperature	10 - 30	°C
Blow Molding Temperature	160 - 180	°C

Test specimens from compression molded plaque according to ASTM D 1928 Procedure C.

NOTE	
1.	Notched Bent Strip
2.	50 mm/min
3.	50 mm/min
4.	1.3 mm/min

Recommended distributors for this material

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