CERTENE™ HWB-1249

High Density (EHMW) Polyethylene

Muehlstein

Message:

HWB-1249 is a certified prime grade Hexene copolymer, Extra High Molecular Weight developed for BLOW MOLDING and THERMOFORMING of high performance, large size industrial parts. HWB-1249 features good melt strength and stiffness, with excellent Impact strength, and stress-crack resistance. HWB-1249 applications include 55- gallon drums, shipping containers, industrial and agrochemical tanks. Thermoformed applications include Truck bedliners, automotive dunnage and Pallets. HWB-1249 recommended processing temperature is 210 to 230°C.. HWB-1249 complies with FDA regulation 21CFR 177.1520 (c) 3.2 (a) and with most international regulations concerning the use of Polyethylene in contact with food articles.

General Information	
Features	Ultra high molecular weight
	Rigid, good
	High ESCR (Stress Cracking Resistance)
	Copolymer
	hexene comonomer
	Impact resistance, high
	Good melt strength
	Compliance of Food Exposure
Uses	Pallets
	Blow molding applications
	Industrial container
	Industrial water tank
	Drum
	Agricultural water tank
	Application in Automobile Field
	Shipping container
Agency Ratings	FDA 21 CFR 177.1520(c) 3.2a
Forms	Particle
Processing Method	Blow molding
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Density	0.949	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	< 0.10	g/10 min	ASTM D1238
190°C/21.6 kg	12	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			
Molding, F50	> 600	hr	ASTM D1693

50°C, 1.75mm, 10% Igepal, molded, F50 [1]	> 600	hr	ASTM D1693B
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield, Compression Molded)	26.0	MPa	ASTM D638
Tensile Elongation [3] (Break, Compression Molded)	800	%	ASTM D638
Flexural Modulus - 1% Secant [4] (Compression Molded)	1170	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength	380	kJ/m^2	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	45.0	°C	ASTM D648
Brittleness Temperature	< -90.0	°C	ASTM D746
Vicat Softening Temperature	126	°C	ASTM D1525
Additional Information	**Nominal Value**	**Unit**	
Blow Molding Temperature	210 - 230	°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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