CERTENE™ HWB-554

High Density (HMW) Polyethylene

Muehlstein

Message:

HWB-554 is a certified prime grade Hexene copolymer High Molecular Weight developed for BLOW MOLDING of high performance medium to large size industrial containers. HWB-554 features High-Swell, consistent processability, outstanding combination of ESCR, Impact strength, Stiffness, Creep resistance, and excellent chemical resistance. HWB-554 applications include 55 gallon drums, shipping containers, industrial tanks, agrochemicals, automotive parts, tool boxes, carrying cases, sport articles, ski and baggage car boxes. HWB-554 recommended processing temperature is 210 to 230°C.. HWB-554 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	Rigid, good
	High ESCR (Stress Cracking Resistance)
	High molecular weight
	Copolymer
	hexene comonomer
	Impact resistance, high
	Workability, good
	Good creep resistance
	Good chemical resistance
	Compliance of Food Exposure
Uses	Tools/Parts Box
	Industrial container
	Industrial water tank
	Drum
	Application in Automobile Field
	Sporting goods
	Shipping 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)			ASTM D1238
190°C/2.16 kg	0.028	g/10 min	ASTM D1238
190°C/21.6 kg	5.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			
Molding, F50	> 1000	hr	ASTM D1693

50°C, 1.75mm, 10% Igepal, molded, F50 [1]	45.0	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	130	°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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