CERTENE™ HWB-1048

High Density (HMW) Polyethylene

Muehlstein

Message:

HWB-1048 is a certified prime grade High Molecular Weight polyethylene copolymer developed for BLOW MOLDING and THERMOFORMING of high performance large size industrial parts. HWB-1048 features good processability, good melt strength and rigidity, excellent combination of low temperature Impact strength, and chemical resistance.
HWB-1048 applications include 55-gallon shipping containers, chemical and fuel tanks, carrying cases, automotive parts, tool boxes, truck-bed liners, and playground equipment. HWB-1048 recommended processing temperature is 190 to 210°C. HWB-1048 complies with FDA regulation 21CFR 177.1520(c) 3.1a + 3.2a (conditions of use B through H) and with most international regulations concerning the use of Polyethylene in contact with food articles.

General Information	
Features	Food Contact Acceptable
	Good Chemical Resistance
	Good Melt Strength
	Good Processability
	High Molecular Weight
	High Rigidity
	Low Temperature Impact Resistance
Uses	Automotive Applications
	Fuel Tanks
	Industrial Containers
	Industrial Tanks
	Liners
	Shipping Containers
	Sporting Goods
	Tool/Tote Box
Agency Ratings	FDA 21 CFR 177.1520(c) 3.1a & 3.2a, B through H
Forms	Pellets
Processing Method	Blow Molding
	Thermoforming

Physical	Nominal Value	Unit	Test Method
Density	0.948	g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR)			ASTM D1238
190°C/2.16 kg	< 0.10	g/10 min	
190°C/21.6 kg [1]	10	g/10 min	
Environmental Stress-Cracking Resistance			ASTM D1693B
10% Igepal, Compression Molded, F50	> 600	hr	
100% Igepal, Compression Molded, F50	> 600	hr	

Mechanical	Nominal Value	Unit	Test Method
Tensile Strength [2] (Yield, Compression Molded)	24.8	MPa	ASTM D638
Tensile Elongation [3] (Break, Compression Molded)	700	%	ASTM D638
Flexural Modulus [4] (Compression Molded)	1210	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Tensile Impact Strength [5] (23°C, Compression Molded)	252	kJ/m^2	ASTM D1822
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (0.45 MPa, Unannealed)	78.0	°C	ASTM D648
Brittleness Temperature	< -75.0	°C	ASTM D746
Vicat Softening Temperature	126	°C	ASTM D1525
Additional Information	**Nominal Value**	**Unit**	
Processing Temperature	190 to 210	°C	
NOTE			
1.	High Load		
2.	50 mm/min		
3.	50 mm/min		
4.	13 mm/min		
5.	50 mm/min		

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China