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PRIMEX PLASTICS CORPORATION
A subsidiary of ICC Industries, Inc.

Prime HMWPE 1000 is a high molecular weight polyethylene with excellent balance of stress crack resistance, stiffness and melt strength. It also has good rigidity and impact strength even at low temperatures. These properties make this product ideal for thermoforming large parts.

Prime HMWPE 1000

Prime HMWPE 1000	Very High	High	Avg.
Impact Strength	*		
Low Temperature Impact Strength	*		
Tensile Strength		*	
Flexural Modulus			*
Heat Deflection Temperature			*

Property	Test Method	Value	Unit
Specific Gravity	D-1505	.949	
Melt Flow	D-1238	10	g/10min
Tensile @ Yield	D-638	3,600	psi
Ultimate Elongation	D-638	>600	%
Flexural Modulus	D-790	170,000	psi
ESCR	D-1693	>600	hrs.
Vicat Softening Point	D-1525	258	ºF
Brittleness Temperature	D-746	<-131	ºF

Complies with FDA Regulation 21 CFR 177. 1520
Complies with UL 94 HB @ > .060 in.
Complies with FMVSS # 302 @ > .060 in.

Applications:

Some ideal applications for Prime HMWPE 1000 include cattle feeders, pallets, truck bed liners, portable toilets, totes and any other parts that require the attributes mentioned above.

Finishing:

Prime HMWPE 1000 can be fabricated by using techniques such as drilling, routing, punching, sawing and cutting with a die, laser or water jet. Mechanical screws and other type of fasteners can be used. Expansion/Contraction must be considered when working with Prime HMWPE 1000.

Processing:

This is a crystalline material, therefore, good forming practices should be used when working with this material. Forming temperature is 310–360ºF. Mold temperature should be 160-200ºF. Aluminum, grit blasted molds are preferred and should be designed with a moat if possible. Mold shrink is .016 to .028 in./in.

Colors, Textures and Capabilities:

Prime HMWPE 1000 can be color matched to meet your specifications. Gauges are available from .015 up to .425 and in widths up to 169". Textures available include the following; Levant II, HC, Calf Grain, RM, and Seville.