

Prime HMWPE 1000

Our Prime HMWPE 1000 is a high molecular weight polyethylene with excellent balance of stress crack resistance, stiffness, and melt strength.

Good rigidity and impact strength even at low temperatures. These properties make this product ideal for thermoforming large parts.

Customization

Prime HMWPE 1000 is a semi-crystalline material, so good forming practices should be used when working with this material. Forming temperature is 310–360°F. Mold temperature should be 160–200°F. Aluminum, grit blasted molds are preferred and should be designed with a moat if possible. Mold shrink is .016 to .028 in./in.

Prime HMWPE 1000 can be color matched to meet your specific requirements through our vertical integration with Primex Color, Compounding & Additives.

Sustainability

Sustainability includes considering the product's circularity or end of life during the design of the finished product. Prime HMWPE 1000 is a polyethylene (recycle code 2) that can be recycled as a post-industrial or post-consumer product. Contact your Primex Territory Business Manager or check with local recycling facilities to determine where it is collected and recycled.

Primex Sustainability: A better tomorrow, starting today!



Prime HMWPE 1000 | Data Sheet

Prime HMWPE 1000 is available in FDA, printing, exterior construction, and thermoforming grades. Noted for their toughness, durability, and chemical resistance our polyolefins are found in a wide variety of consumer and industrial applications.

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 HMWPE 1000.

Colors, Textures, and Capabilities

Prime HMWPE 1000 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.

| Property | Method | Value | Unit |
|-------------------------|--------|---------|----------|
| Specific Gravity | D792 | .949 | |
| Melt Flow | D1238 | 10 | g/10 min |
| Tensile @ Yield | D638 | 3,600 | psi |
| Ultimate Elongation | D638 | >600 | % |
| Flexural Modulus | D790 | 170,000 | psi |
| ESCR | D1693 | >600 | hrs. |
| Brittleness Temperature | D746 | <-131 | °F |
| Vicat Softening Point | D1525 | 258 | °F |

FDA and UL compliant materials available upon request.

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

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