UHMWPE, HMPE, HPPE, IPX®

Ultra-High Molecular Weight Polyethylene

Available in Sheet, Rod, Tube & Machined Parts



UHMW Overview

UHMW-PE (also shortened to UHMW), stand for Ultra High Molecular Weight Polyethylene. It's this extremely high molecular weight that gives UHMW-PE an unsurpassed combination of slickness, toughness and chemical resistance. It's a common plastic encountered every day in the form of food containers and many home appliances. Because of its low coefficient of friction, UHMW-PE is self-lubricating; it replaces unwanted grease and oil in many applications such as bearings and conveyors.

UHMW Applications

Typical applications include gears, springs, plates, bushings and housings. The Food and Drug Administration has approved natural virgin UHMW for use in the food industry.

Industrial: conveyor guide rails, belt scrapers, chain guides, suspension wear plates, rider plates, idler rollers, guide shoes, wear strips and shoes

Machined Parts: sprockets, wheels, bearings, component parts, pinion gears, flanged rollers

UHMW Features

- · Extremely high abrasion resistance
- · Outstanding impact strength, even at low temperatures
- Extremely low coefficient of friction
- · Self-lubricating
- · Easily machined with common woodworking tools
- · Great chemical resistance

UHMW Specifications

Friction Coefficient 0.16

Tensile Strengh 2600 PSI
Impact Strength, Notched Izod 19 - 34 Ft-lbs/Inch
Hardness (Rockwell & Burnell) R62 - R68
Specific Gravity 0.94
Melting Point 278F
Elongation 100 - 250%

*Specs accurate at 73°F

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