Tech Bulletin

Design Improvement and Material Change for Roller Guide on Series: 40, 9000 & 30000

Material: Ultra high molecular weight polyethylene (UHMWPE)

Operating Characteristics:

Doesn't absorb water and won't rust
Rated better than Carbon Steel for sliding abrasion applications
Working temperature is -115° to 220°F, will not crack in cold or melt in heat
High Impact Strength will absorb impact energy without breaking or permanently deforming
UV stable so exposure to sun light will not fade or crack material
No plating to chip, peel or crack
Non-marking
Approved for food applications

Other applications:

Food processing and beverage machinery
Mining and mineral processing equipment
Snow plow blades
Bearings
Sockets of artificial hips
Ballistic vests
Mallet heads
Butchers' chopping blocks

Physical Properties

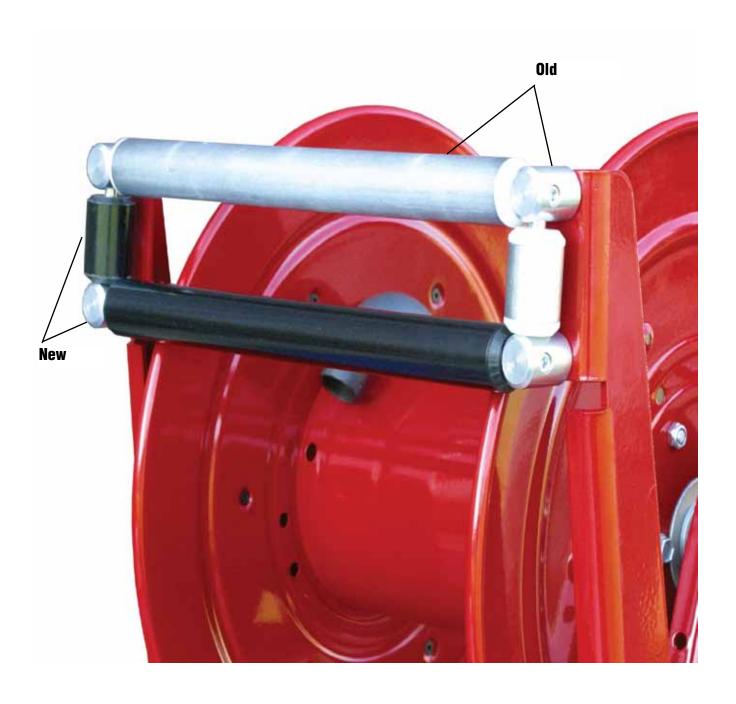
Melting Point (F)	278
Abrasion resistance of DURAVAR UHMW relative to carbon steel	10
IZOD Impact (ft - lbs/in)	No break
Density (lb/in^3)	0.0340
Elongation at break (%)	>190
Rockwell Hardness (R)	67

Chemical Resistance

Substance	
Chromic Acid (low concentration)	Resistant
Hydrochloric Acid	Resistant
Hydrogen Peroxide	Resistant
Nitric Acid	Limited Resistant
Phosphoric Acid	Resistant
Sodium Hydroxide	Resistant
Sodium Hypochlorite	Resistant
Sulfuric Acid	Resistant
Water, Sea	Resistant
Acetic Acid	Resistant
Acetone	Resistant
Carbon Tetrachlorine	Not Resistant
Ethanol	Resistant
Ethyl Acetate	Resistant
Ethyl Dichloride	Limited Resistant
Gasoline	Resistant
Trichloroethylene	Limited Resistant

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Page 2 www.reelcraft.com