



Key Features

Outstanding Wear Resistance

Lasts significantly longer in abrasive operating conditions.

Ultra-Low Friction

Self-lubricating surface minimizes drag and material sticking.

Exceptional Impact Strength

Absorbs repeated impacts without cracking or breaking.

Noise Reduction

Reduces operating noise for smoother equipment performance.

Chemical Resistance

Performs reliably in harsh chemical and wet environments.

Engineered Material Grades

Available in FDA, ESD, Oil-Filled and custom formulations.

Key Application

Conveyor Guide Systems

Ensure smooth, low-friction product guidance for high-speed conveyor systems.

Chain Wear Strips

Reduce chain wear, operating noise, and maintenance in continuous conveying applications.

Chute & Hopper Liners

Protect equipment from severe abrasion and improve bulk material flow efficiency.

Food Processing Equipment

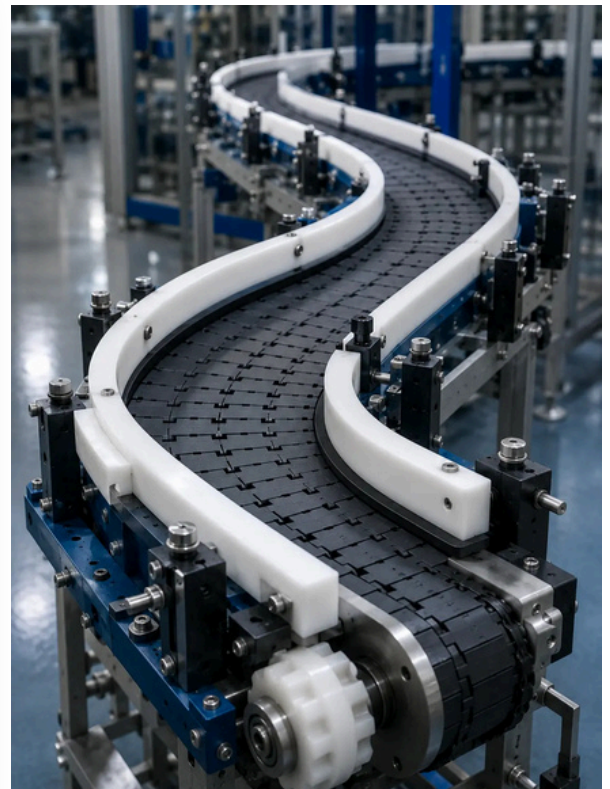
Provide hygienic, low-friction wear components for food and beverage production lines.

Packaging & Bottling Equipment

Deliver reliable guiding and wear solutions for automated packaging and bottling machinery.

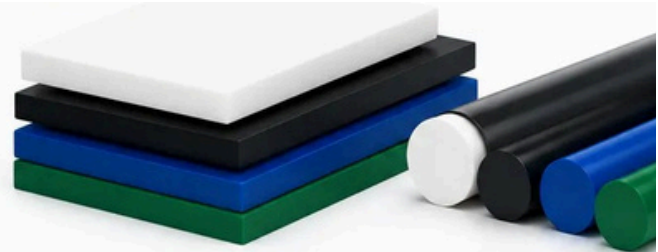
Marine Fender Systems

Absorb impact and minimize wear in demanding marine and port environments.

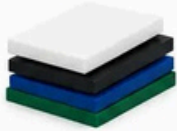


Standard Specifications

We offer a wide range of UHMWPE sheet and rod products in various sizes, thicknesses, colors, and material grades to meet diverse industrial requirements. Custom options and precision machining are available.

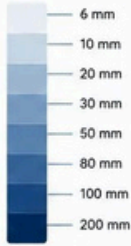


01 UHMWPE SHEET



THICKNESS RANGE

6 – 200 mm
(0.24 – 7.87 in)



STANDARD SHEET SIZES

- 2000 × 1000 mm (78.74 × 39.37 in)
- 3000 × 1500 mm (118.11 × 59.06 in)
- 3000 × 2000 mm (118.11 × 78.74 in)
- 6000 × 2000 mm (236.22 × 78.74 in)

 Other sizes available upon request.

02 UHMWPE ROD



DIAMETER RANGE

Ø 20 – 205 mm
(Ø 0.79 – 8.07 in)

LENGTH

1000 – 3000 mm
(39.37 – 118.11 in)

 Custom length available.

03 MATERIAL GRADES



VIRGIN UHMWPE

General purpose grade



FDA FOOD GRADE

Compliant with FDA regulations



ESD GRADE

Anti-static for sensitive applications



OIL-FILLED GRADE

Enhanced wear and impact resistance



UV RESISTANT GRADE

Improved outdoor durability



RECYCLED GRADE

Sustainable and cost-effective



Other grades and custom formulations available.

04 COLOR OPTIONS

 Natural

 Black

 Green

 Blue

 Red

 Yellow

 Custom Colors Available



Custom colors can be produced to match your requirements.



BUILT FOR PERFORMANCE.
MADE TO YOUR SPEC.



CUSTOM SIZES
Tailored to your exact needs.



CUSTOM COLORS
A variety of colors and custom options.



PRECISION MACHINING
Tight tolerances and complex geometries.



QUALITY ASSURED
Consistent quality you can rely on.

Engineering & Supply Chain Capabilities

ENGINEERING CAPABILITY

From concept to manufacturable parts.



CUSTOMER CHALLENGES



Unsure which material to choose?

Choosing the right material can be challenging.



Design difficult to machine?

Complex designs increase costs and lead time.



Complex part geometry?

Challenging geometries need expert support.



Tight tolerance required?

Precision requirements demand reliable processes.

HOW WE HELP



MATERIAL SELECTION

Performance-based material recommendations.



DFM REVIEW

Optimize designs for manufacturability.



ENGINEERING SUPPORT

Expert engineering from concept to production.



PRECISION MACHINING

Tight tolerance machining with consistent quality.

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Engineered HDPE & UHMWPE Solutions for Industrial Applications

FLEXIBLE MANUFACTURING

From small batch to mass production.

PROTOTYPE → SMALL BATCH → MASS PRODUCTION



CUSTOMER CHALLENGES



Uncertain order quantity?

Demand fluctuates and is hard to predict.



Need fast turnaround?

Long lead time delays your project.



From prototypes to large orders?

Smooth transition is often challenging.



Multiple SKUs and custom needs?

Complexity increases management difficulty.

HOW WE HELP



FLEXIBLE CAPACITY

Adjust capacity to meet your order quantity.



SHORT LEAD TIME

Efficient planning and process control.



SCALABLE PRODUCTION

Seamless from prototype to mass production.



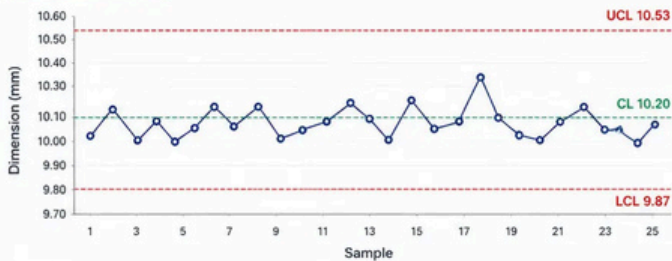
SMART PRODUCTION

Advanced systems ensure flexibility and efficiency.

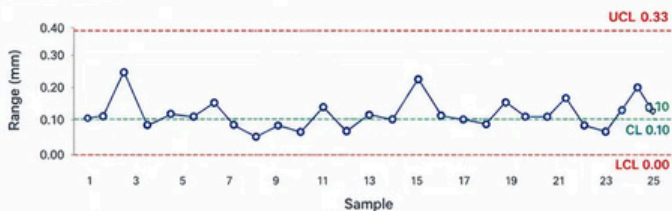
QUALITY CONSISTENCY

Consistent quality you can rely on.

X Chart (Dimension)



R Chart (Range)



CUSTOMER CHALLENGES



Inconsistent product quality?

Variations affect performance and reliability.



Dimension out of tolerance?

Out-of-spec parts cause fit and assembly issues.



Material quality concerns?

Poor material leads to premature failure.



Defects or surface issues?

Surface defects impact appearance and function.

HOW WE HELP



STRICT QUALITY CONTROL

Rigorous inspections at every stage ensure consistency.



DIMENSIONAL VERIFICATION

Advanced equipment and process control guarantee accurate dimensions.



MATERIAL TRACEABILITY

Certified materials with full traceability and test reports.



THOROUGH INSPECTION

Visual and functional inspections to deliver defect-free products.

✓ Data-driven process control ✓ Reduce variation ✓ Ensure reliability ✓ Consistent results

SUPPLY CHAIN MANAGEMENT

From raw material to your door, seamlessly.



CUSTOMER CHALLENGES	HOW WE HELP
 Unstable raw material supply? Supply interruptions impact your production plan.	 RELIABLE SOURCING Long-term partnerships ensure stable, quality raw materials.
 Lack of inventory visibility? Unclear inventory leads to delays and shortages.	 INVENTORY MANAGEMENT Real-time inventory monitoring ensures transparency.
 Complex logistics and customs? Shipping and customs add risk and uncertainty.	 GLOBAL LOGISTICS SUPPORT Experienced in global shipping and customs clearance.
 Delivery delays or damage? Late or damaged goods affect your operations.	 ON-TIME, SAFE DELIVERY Secure packaging and trusted carriers ensure on-time delivery.

HDPE vs. UHMWPE – Material Selection Guide

Compare performance characteristics and application suitability to choose the right material for your project.

UHMWPE PERFORMANCE CHARACTERISTICS How UHMWPE performs in key application requirements.		
CHARACTERISTIC	PERFORMANCE	DESCRIPTION
 Wear Resistance	● Excellent	Outstanding resistance to abrasive wear and surface degradation.
 Low Friction	● Excellent	Very low coefficient of friction for smooth, trouble-free movement.
 Impact Strength	● Excellent	High impact absorption, even at low temperatures.
 Chemical Resistance	● Excellent	Resistant to a wide range of chemicals and solvents.
 Moisture Absorption	● Excellent	Extremely low water absorption; won't swell or degrade.
 Noise Reduction	● Very Good	Helps reduce noise and vibration in operation.
 Operating Temperature	● Excellent	Stable performance from -200°C to +80°C (-328°F to 176°F).
 UV Resistance*	● Good	Good for typical use; enhanced UV grades available for outdoor applications.
 Weldability	● Limited	Not recommended for welding; mechanical fastening preferred.



Performance ratings: ● Excellent ● Good / Very Good ● Limited

Ratings reflect typical performance of virgin UHMWPE (standard grade). Performance may vary based on grade, formulation, processing and operating conditions.



APPLICATION SELECTION GUIDE

Quick comparison to help you choose the right material.

APPLICATION REQUIREMENT / CONDITION	HDPE	UHMWPE	RECOMMENDATION
 Tanks, Bins & Chemical Containers	 Excellent	 Good	HDPE is more economical for chemical storage.
 Weldable / Fabricated Structures	 Excellent	 Limited	HDPE can be easily welded and fabricated.
 Wear & Abrasion Resistance	 Good	 Excellent	UHMWPE is ideal for high wear environments.
 Low Friction / Sliding Performance	 Good	 Excellent	UHMWPE provides superior low friction and smooth sliding.
 High Impact Resistance	 Good	 Excellent	UHMWPE offers better impact strength and durability.
 Low Temperature Performance	 Good	 Excellent	UHMWPE maintains toughness even in very cold conditions.
 Food Contact Applications	 Excellent (FDA)	 Excellent (FDA)	Both materials are available in FDA compliant grades.
 Outdoor / UV Exposure	 Good	 Good*	HDPE better color stability. UV-stabilized UHMWPE available.
Cost Efficiency	 Excellent	 Good	HDPE is more cost-effective for general applications.
Long Service Life in Wear Apps	 Good	 Excellent	UHMWPE significantly extends service life and reduces downtime.

 Excellent (Highly Recommended)
  Good (Suitable)
  Limited / Poor (Not Recommended)



GENERAL RECOMMENDATION

Choose HDPE for general fabrication, tanks, and cost-sensitive applications.

Choose UHMWPE for demanding wear, low friction, impact-prone, and long service life applications.