

Gar-Dur® UHMW Key Features & Benefits

- Made from the highest molecular weight polyethylene – minimum molecular weight of 4.2 million
- ASTM D-4020 05-A
- NSF / FDA / USDA approved
- Resistant to chemicals (V/Yellow) and UV (RG/Black)
- Low surface friction – coefficient of friction is .14 or less
- Will not absorb water or most chemicals – stable in harsh environments
- Light weight – UHMW floats with a density of .93
- Long lasting performance – longer wear life than steel
- Non-toxic and non-hazardous
- Lower replacement cost than steel or polyurethane
- Less drive energy required for UHMW sprockets than for nylon or cast iron sprockets
- Will not clog the system with debris
- Lower maintenance for less down-time

Garland's Gar-Dur UHMW Wastewater Treatment Plant Components

- UHMW Wear Shoes – carry wear shoes and return wear shoes – knock-off wear shoes and dumbbell wear shoes
- UHMW Wear Rails and UHMW Wear Strips – for return and floor rails
- Idler Sprockets and Drive Sprockets
- Sprocket Tooth Segments, Split and Solid Sprockets
- Static Shaft Sleeves, Collars and Bushings
- Scum Trough Wall Bearings
- UHMW Weirs and UHMW Trough Liners
- Custom CNC-Machined Replacement Parts

Additional applications include Feedscrews, Gears, Idlers, Pulleys, Rotating Bearings & Seals, Sliding Bearings, and more.

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Why Specify Garland's Gar-Dur Components for Your Treatment Plant's Equipment?

Over the last twenty years or so, UHMW has proven to be the best material for use in a wide variety of critical wastewater equipment applications.

However, not all polyethylene is the same. Garland's virgin grade Gar-Dur UHMW, created and machined under stringent ISO 9001 quality guidelines, has a minimum molecular weight of no less than 4.2 million and an intrinsic viscosity of 24, ensuring the highest quality, best-performing products on the market today.

Let us show you how we can provide your facility with replacement parts for refits, upgrades, and change-outs of a wide variety of WWTP system components.

Garland's ISO 9001-certified manufacturing process enables us to produce the highest quality UHMW Polyethylene on the market today. Our extensive experience with the extrusion and machining of this material provides you with the assurance that our replacement components fit, function, and perform to specification, every time.



Garland Manufacturing Company

ESTABLISHED 1866

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GAR-DUR®

UHMW Polyethylene

**Engineered and Manufactured for
Wastewater Treatment Facilities
Requiring the Very Highest Quality,
Most Reliable, Longest-Lasting
Wear Components Available**



Garland Manufacturing Company

ESTABLISHED 1866

Established in 1866—and manufacturing specialized plastic products for the last half-century—Garland Manufacturing Company is widely recognized as a pioneer in the development and

manufacture of UHMW (Ultra High Molecular

Weight) Polyethylene. UHMW is a specialized engineering thermoplastic

capable of withstanding heavy impact and offering extreme resistance

to both abrasion and chemical

deterioration—ideal for

wastewater treatment plant

applications.

Garland produces both

custom and stock OEM

components, as well as

aftermarket and replacement parts for the

WWTP equipment industry.

Garland's Gar-Dur® brand UHMW

products are currently in use by, and are the favored replacement parts of choice at,

many of the largest WWTP facilities worldwide.

Gar-Dur® UHMW Polyethylene offers numerous WWTP equipment applications including primary & secondary sedimentation

and clarifier tanks, chain and flight systems, as well as a variety of other critical applications.

No other material can match Gar-Dur's benefits and long service life in these typically high-abrasion, high-impact applications.

(For certain applications, Garland Manufacturing offers our Gar-Dur brand UHMW in both virgin grade UHMW, as well as UHMW RG, a reprocessed grade of UHMW Polyethylene.)

Reliable Even in the Most Hostile of Conditions

Gar-Dur UHMW is engineered to function in corrosive chemical environments, in extreme cold, and in applications where abrasion resistance is required. Gar-Dur is extremely durable, having a very

low coefficient of friction and high impact resistance. It is much quieter than metals, and Gar-Dur will not absorb water or solvents.

Over the years, Garland's Gar-Dur replacement parts have helped industrial facilities of all types to improve performance and achieve reduced down-time. Replacing metal parts eliminates the need for lubrication, reducing maintenance, energy, and associated operating costs.

The high-capacity Coney Island Wastewater Treatment Plant (230 MGD), serving millions in metro New York, routinely relies on Gar-Dur wear rails, wear shoes, scraper blades, and sprockets. In the harsh WWTP environment, this special polymer doesn't need to be replaced as often, doesn't absorb fluids, and won't allow sludge and debris to adhere to its surfaces. Gar-Dur parts keep the machinery working smoothly without lubrication—and without the sustained periods of down-time formerly endured at the facility.

Proven in the Most Demanding of Industries

Garland's Gar-Dur machined parts have also been used in mining, pulp and paper operations, refrigeration, chemical plants, material handling industries, automotive assembly plants, and other industrial facilities for nearly fifty years.

Garland Manufacturing Company's skilled production staff ensures that your parts are made precisely to your specifications or existing designs. Our goal of 100% on-time delivery drives us to provide prompt, responsive customer service and helps to minimize your down-time.

Gar-Dur wear rails are readily configured in a variety of thicknesses, widths, and lengths, with custom angles mitered to align perfectly with rails already in service.

Some of Garland's most commonly ordered Gar-Dur parts include this collection of stock wear shoes (shown with and without lugs); wear rail sections, bottom right; and a 23-tooth idler sprocket with chainsaver rim, shown at the far left.

Garland's high-visibility Safety Yellow UHMW is a virgin-grade material offering the best performance for demanding applications.

Garland's UV-resistant RG Black UHMW offers improved performance for outdoor, UV-exposed applications.

