



Tivar® HPV UHMW

Dry-Running Bearing Grade UHMW for Extreme Wear

Description and Overview

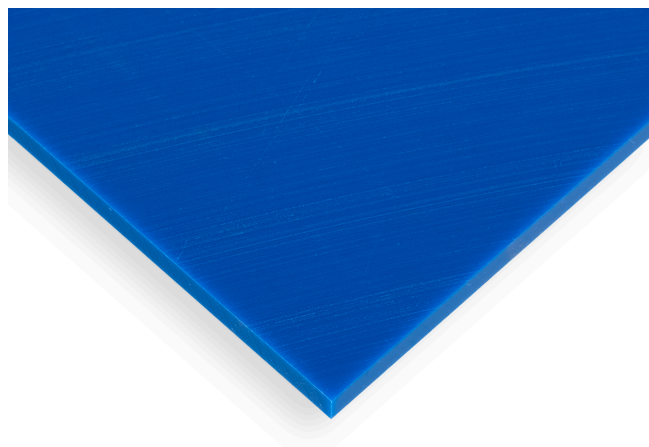
Tivar® HPV UHMW is an advanced bearing-grade thermoplastic specifically engineered for extreme wear and dry-running applications. Formulated with a built-in dry lubricant, this low-friction material minimizes stick-slip to enhance motion and reduce drag in high-stress conveying systems and bearings, ensuring seamless operation without the need for external lubrication.

Featuring exceptionally low friction compared to standard UHMW grades, Tivar® HPV provides precise motion control by eliminating backsliding, squeaking, and chatter. It ensures smoother, quieter operations and extends the productive life cycles of equipment while protecting expensive mating parts in high-pressure production environments.

Applications and Uses

Tivar® HPV is engineered for peak efficiency and safety in high-stress industrial environments. This material is FDA compliant for applicable food-contact applications and is easy to fabricate using standard woodworking tools. It offers a cost-effective, long-term solution for extending productive cycles and minimizing maintenance downtime in demanding production systems.

- High-stress conveyor systems
- Dry-running rollers and bearings
- Chain guides and straight guides
- Corner wear bends and sliding strips
- Food processing equipment
- Packaging line components



Tivar® HPV is available as full sheets.
Full sheet: 48" x 120"
Thicknesses: .25" to 2"

Properties and Specifications

Property	Tivar® HPV UHMW
Density	0.93 g/cm ³
Water Absorption @ 24 hrs.	0.1%
Tensile Strength	5,900 psi
Tensile Modulus	56 ksi
Flexural Modulus	77 ksi
Flexural Strength	3,000 psi
Elongation @ Break	390%
Dynamic Coefficient of Friction	0.09
Hardness, Shore D	65
UL Flammability	HB
Heat Deflection Temperature	116°F @ 264 psi
Affixable Properties	Mech

Properties are typical.
Chem is an abbreviation for chemically affixed with glues, chemicals, or adhesive.
Mech is an abbreviation for mechanically affixed bonding.
Field testing is recommended for any application.

