



TIVAR® H.O.T.

Higher Operating Temperature UHMW

Description and Overview

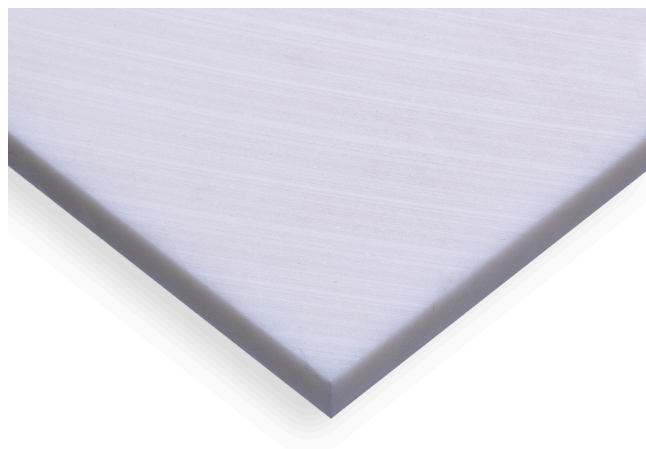
TIVAR® H.O.T. (Higher Operating Temperature) is a premium UHMW-PE thermoplastic that maintains its exceptional performance in high-heat environments up to 275°F. Unlike standard UHMW plastics that degrade under continuous heat, this specialized material features additives that inhibit oxidation and slow chemical degradation. It serves as a superior, extended-wear solution for thermo-cycling applications, outlasting competing formulations by up to 10 times in environments where steam, friction, or high ambient heat are present.

TIVAR® H.O.T. features superior wear resistance and is a highly durable barrier against both friction and the corrosive chemicals typical in intense sanitation washdowns.

Applications and Uses

TIVAR® H.O.T. is specifically formulated for "Heat Zone" environments and is fully compliant with FDA requirements for use in food processing industries. This material is easily fabricated using standard woodworking or metalworking tools and offers a reliable, extended-life solution for high-heat food processing and industrial conveying systems.

- Spiral conveyors for baking
- Dehydrating systems & conveyor dryers
- Meat & poultry processing components
- Drag conveyor flights for grain elevators
- Bulk material handling chute liners
- High-temperature wear pads & plates
- Machined parts & chain guides
- Chemical washdown equipment



Tivar® H.O.T. is available as full sheets.
Full sheet: 48" x 120"
Thicknesses: .125" to 1.5"

Properties and Specifications

| Property | TIVAR® H.O.T. UHMW |
|-------------------------------|------------------------|
| Density | 0.93 g/cm ³ |
| Water Absorption @ 24 hrs. | 0.1% |
| Tensile Strength | 6,800 psi |
| Tensile Modulus | 72.5 ksi |
| Flexural Modulus | 80 ksi |
| Flexural Strength | 3,800 psi |
| Elongation @ Break | 300% |
| Izod Impact Strength, notched | – |
| Hardness, Shore D | 68 |
| 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.

