

Tivar® Oil Filled (Oil Filled UHMW-PE)

TIVAR® Oil Filled is the material of choice for packaging, bottling, and food processing and handling applications requiring FDA and USDA compliance. This advanced product uses oil filled polymers to lubricate mating surfaces with a dynamic coefficient of friction formula of less than 0.14. With TIVAR® Oil Filled, conveyors operate more effectively, without the effort and added expense of unnecessary lubrication. On TIVAR® Oil Filled guides, sprockets and conveyor components, chains move easily with less tension, stretching or binding.

- Meets FDA and USDA guidelines
- Reduces noise
- Self-lubricating
- Corrosion-resistant
- No moisture absorption

Applications

Bottling conveyor cam guides	Chain radius guides
Chain tensioners	Chain wearstrips
Continuous chain under chain slide strips	
Conveying components: bearings, belt guides, chain guides, curves, guide rails, wearstrips	
Entry/exit tables	Fabricated chain bow curves
Roll-end bearings	Roller chain guides
Sprockets	Spur gears
Star wheels	Timing screws
Underchain wearstrips	

Property	ASTM Test Method	Units	Tivar® Oil Filled
Physical			
Density	D792	lbs/ft ³	57.8-58.5
Water Absorption	D570	%	nil
Mechanical			
Yield Point	D638	psi	2,580-2,670
Elongation at Yield	D638	%	12-18
Tensile Break	D638	psi	7,252
Elongation at Break	D638	%	280
Tensile Modulus	D638	psi	76,000
Flexural Modulus	D790	psi	63,818
Compressive Modulus	D695	psi	42,062
Izod Impact (Double Notch)	D4020	ft-lbs/in ²	36.2
Tensile Impact	DIN 53448	ft-lbs/in ²	1,366
Sand Wheel Wear	G65	T-1000=100	110
Hardness	D2240	Shore D	65
Static Friction	D1894		0.208
Dynamic Friction	D1894		0.195
Thermal			
Coefficient of Thermal Expansion	D696	in/in/°F	0.00011
Melt Point	D3417	°F	289
Electrical			
Volume Resistivity	D257	Ohm-cm	>10 ¹⁵
Surface Resistivity	D257	Ohm-cm	>10 ¹⁵

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.