

Quadrant EPP TIVAR® DrySlide UHMW-PE Lubricant Filled, Electro Static Dissipative, UV Stabilized (ASTM Product Data Sheet)
Categories: Polymer; Thermoplastic; Polyethylene (PE); HDPE; High Density Polyethylene (HDPE), UHMW PE Ultra High Molecular Weight

- Material Notes:**
- Electro Static Dissipative
 - Ideal for dusty environments
 - Helps reduce surging
 - Won't mar packaging or products
 - Corrosion-resistant
 - Self-lubricating
 - Reduces noise
 - No moisture absorption

Physical Properties	Metric	English	Comments
Specific Gravity	0.940 g/cc	0.940 g/cc	ASTM D792
Water Absorption	<= 0.010 %	<= 0.010 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	<= 0.010 %	<= 0.010 %	Immersion; ASTM D570(2)
Mechanical Properties	Metric	English	Comments
Hardness, Shore D	64	64	ASTM D2240
Tensile Strength	35.2 MPa	5100 psi	ASTM D638
Elongation at Break	200 %	200 %	ASTM D638
Tensile Modulus	0.600 GPa	87.0 ksi	ASTM D638
Flexural Strength	17.9 MPa	2600 psi	ASTM D790
Flexural Modulus	0.496 GPa	72.0 ksi	ASTM D790
Compressive Strength	20.0 MPa	2900 psi	10% Def.; ASTM D695
Compressive Modulus	0.552 GPa	80.0 ksi	ASTM D695
Izod Impact, Notched	NB	NB	ASTM D256 Type A
Coefficient of Friction, Dynamic	0.080	0.080	Dry vs. Steel; QTM55007
Sand Slurry	10	10	1018 Steel = 100
Limiting Pressure Velocity	0.140 MPa-m/sec	4000 psi-ft/min	4:1 safety factor; QTM 55007
Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	100000 - 1.00e+9 ohm	100000 - 1.00e+9 ohm	ASTM D257
Thermal Properties	Metric	English	Comments
CTE, linear	198 $\mu\text{m}/\text{m}\cdot\text{C}$ @Temperature -40.0 - 149 °C	110 $\mu\text{in}/\text{in}\cdot\text{F}$ @Temperature -40.0 - 300 °F	ASTM E831
Melting Point	135 °C	275 °F	Crystalline, Peak; ASTM D3418
Maximum Service Temperature, Air	82.2 °C	180 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	46.7 °C	116 °F	ASTM D648
Flammability, UL94	HB	HB	1/8 inch (Estimated Rating)
Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
Canada AG	No	No	
FDA	No	No	
NSF	No	No	
USDA	No	No	
USP Class VI	No	No	
Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Limited	Limited	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Acceptable	Acceptable	
Alkalies, Weak	Acceptable	Acceptable	
Chlorinated Solvents	Acceptable	Acceptable	
Conductive / Static Dissipative	Yes	Yes	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Acceptable	Acceptable	
Hydrocarbons - Aromatic	Unacceptable	Unacceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	

Organic Solvents

Acceptable

Acceptable

Ketones, Esters

Limited

Limited

Descriptive Properties

Machinability

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1-10, 1=Easier to Machine