

## Quadrant EPP TIVAR® Polysteel Filled UHMW-PE, High Specific Gravity (ASTM Product Data Sheet)

Category : Polymer , Thermoplastic , Polyethylene (PE) , HDPE , High Density Polyethylene (HDPE), UHMW PE Ultra High Molecular Weight

Material Notes:

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Quadrant-EPP-TIVAR-Polysteel-Filled-UHMW-PE-High-Specific-Gravity-ASTM-Product-Data-Sheet.php](http://www.lookpolymers.com/polymer_Quadrant-EPP-TIVAR-Polysteel-Filled-UHMW-PE-High-Specific-Gravity-ASTM-Product-Data-Sheet.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.45 g/cc	1.45 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	19.3 MPa	2800 psi	ASTM D638
Elongation at Break	125 %	125 %	ASTM D638
Tensile Modulus	0.421 GPa	61.0 ksi	ASTM D638
Flexural Modulus	0.752 GPa	109 ksi	ASTM D790
Compressive Strength	24.8 MPa	3600 psi	10% Def.; ASTM D695
Compressive Modulus	0.579 GPa	84.0 ksi	ASTM D695
Coefficient of Friction, Dynamic	0.14	0.14	Dry vs. Steel; QTM55007

Thermal Properties	Metric	English	Comments
Melting Point	127 °C	260 °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)

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	>= 1.00e+10 ohm	>= 1.00e+10 ohm	ASTM D257

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	
Ketones, Esters	Limited	Limited	

Descriptive Properties	Value	Comments
Machinability	3	1-10, 1=Easier to Machine

## Contact Songhan Plastic Technology Co.,Ltd.

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