Quadrant EPP TIVAR® SuperPlus

Ultra High Molecular Weight Polyethylene

Quadrant Engineering Plastic Products

Message:

Quadrant EPP TIVAR® SuperPlus is an Ultra High Molecular Weight Polyethylene product filled with glass fiber. It is available in North America.
Characteristics include:
Flame Rated
Chemical Resistant
Crosslinkable
Heat Stabilizer
High Molecular Weight

General Information	
Filler / Reinforcement	Glass Fiber
Additive	Heat Stabilizer
Features	Acid Resistant Alcohol Resistant Alkali Resistant Crosslinkable Good Wear Resistance Heat Stabilized Hydrocarbon Resistant Machinable Solvent Resistant Ultra High Molecular Weight
Forms	Preformed Parts Profiles Rod Sheet Tubing

Physical	Nominal Value	Unit	Test Method
Specific Gravity	0.960	g/cm³	ASTM D792
Water Absorption			ASTM D570
24 hr	< 0.010	%	
Saturation	< 0.010	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Durometer Hardness (Shore D)	70		ASTM D2240
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	703	MPa	ASTM D638
Tensile Strength (Ultimate)	36.5	MPa	ASTM D638

Tensile Elongation (Break)	300	%	ASTM D638
Flexural Modulus	586	MPa	ASTM D790
Flexural Strength (Yield)	21.4	MPa	ASTM D790
Compressive Modulus	414	MPa	ASTM D695
Compressive Strength (10% Strain,23°C)	20.7	MPa	ASTM D695
Coefficient of Friction (vs. Steel - Static)	0.15		Internal Method
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact	No Break		ASTM D256A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (1.8 MPa, Unannealed)	46.7	°C	ASTM D648
Maximum Use Temperature - Long Term, Air	104	°C	
Limiting Pressure Velocity [1]	0.0701	MPa·m/s	Internal Method
Peak Crystallization Temperature (DSC)	135	°C	ASTM D3418
CLTE - Flow [2] (-40 to 149°C)	2.2E-4	cm/cm/°C	ASTM E831
Thermal Conductivity	0.41	W/m/K	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+15	ohms	ASTM D257
Dielectric Strength [3]	91	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	2.30		ASTM D150
Dissipation Factor (1 MHz)	5.0E-4		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (3.18 mm, Estimated Rating)	HB		UL 94
NOTE			
1.	4:1 safety factor		
2.	68°F		
3.	Method A (Short-Time)		

Recommended distributors for this material

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