Data Sheet
TIVAR® 88-2 Blue
Premium Lubricant Filled, Lower COF UHMW-PE Lining Material

Property	Units	Test Method	Typical Average Values
Mechanical			
Specific Gravity, 73° F	-	ASTM D792	.933
Tensile Strength, 73° F	psi	ASTM D638	5,500
Tensile Modulus of Elasticity, 73° F	psi	ASTM D638	97,000
Tensile Elongation (at break), 73° F	%	ASTM D638	200
Flexural Strength, 73° F	psi	ASTM D790	3,000
Flexural Modulus of Elasticity, 73° F	psi	ASTM D790	105,000
Shear Strength, 73° F	psi	ASTM D732	4,800
Compressive Strength, 10% Deformation, 73° F	psi	ASTM D695	2,900
Compressive Modulus of Elasticity, 73° F	psi	ASTM D695	80,000
Hardness, Rockwell, Scale as noted, 73° F	-	ASTM D785	-
Hardness, Durometer, Shore "D" Scale, 73° F	-	ASTM D2240	64
Izod Impact (notched), 73° F	ft.lb./in.	ASTM D256 Type "A"	No Break
Izod Impact (double notch), 73° F	ft.lb./in. of notch	ASTM D4060	45.2
Coefficient of Friction (Dry vs. Steel) Dynamic	-	QTM 55007	.08
Limiting PV (with 4:1 safety factor applied)	ft.lbs.in.^{2} min.	QTM 55007	2,000
Sand Slurry Abrasion	1018 Steel = 100.	ASTM D4020	11
Thermal			
Coefficient of Linear Thermal Expansion (-40°F to 300°F)	in./in./°F	ASTM E-831 (TMA)	2.0 x 10^{-4}
Heat Deflection Temperature 264 psi	°F	ASTM D648	116
Tg-Glass Transition (amorphous)	°F	ASTM D3418	-
Melting Point (crystalline) peak	°F	ASTM D3418	275
Continuous Service Temperature in Air (Max.)(1)	°F	-	180
Thermal Conductivity	BTU in./(hr.ft.^{2} °F)	ASTM E 1530-11	2.84

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Property	Units	Test Method	Typical Average Values
Electrical			
Dielectric Strength, Short Term	Volts/mil	ASTM D149	-
Surface Resistivity	ohms/square	EOS/ESD S11.11	$>10^{15}$
Dielectric Constant, 10^6 Hz	-	ASTM D150	2.3
Dissipation Factor, 10^6 Hz	-	ASTM D150	$< 0.5 \times 10^3$
Flammability @ 3.1 mm (1/8 in.) (3)	-	UL94	HB
Miscellaneous			
Water Absorption Immersion, 24 Hours	% by wt.	ASTM D570(2)	<0.01
Water Absorption Immersion, Saturation	% by wt.	ASTM D570(2)	<0.01

(1) Data represent Quadrant's estimated maximum long-term service temperature based on practical field experience.
(2) Specimens: 1/8" thick x 2" diameter or square.
(3) **Estimated rating based on available data.** The UL 94 Test is a laboratory test and does not relate to actual fire hazard. Contact Quadrant for specific UL "Yellow Card" recognition number.