

Wolf Kunststoff ZEDEX® ZX-750V5T A9T Polymer Alloy

Category : Polymer , Thermoplastic

Material Notes:

Main Characteristics: Hard; Stiff; Tough; High dimensional stability; High fatigue strength; High weather resistance; Good fire behavior; Suitable for vacuum; Good machinability; Contains PTFE; Stress resistant
 Applications: Textile Machinery; Compressors; Hinges; Handling; Machine Tools; Automitve Technology
 Information provided by Zedex

Order this product through the following link:

http://www.lookpolymers.com/polymer_Wolf-Kunststoff-ZEDEX-ZX-750V5T-A9T-Polymer-Alloy.php

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 lb/in ³	ISO 1183
Water Absorption	0.20 % @Temperature 23.0 °C	0.20 % @Temperature 73.4 °F	RMC 93%; DIN EN ISO 62
Moisture Absorption at Equilibrium	0.50 %	0.50 %	DIN EN ISO 62

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	>= 100	>= 100	DIN 53505
Hardness, Shore D	85	85	DIN 53505
Ball Indentation Hardness	110 MPa	16000 psi	DIN 2039
Tensile Strength at Break	45.0 MPa	6530 psi	DIN EN ISO 527
Tensile Strength	45.0 MPa	6530 psi	DIN EN ISO 527
Tensile Stress	35.0 MPa @Strain 1.00 %, Time 3.60e+6 sec	5080 psi @Strain 1.00 %, Time 1000 hour	DIN 53444
Tensile Strength, Yield	35.8 MPa	5190 psi	Elastic Limit
Elongation at Break	3.1 %	3.1 %	Flexural; DIN EN ISO 178
	3.1 %	3.1 %	DIN EN ISO 527
Elongation at Yield	2.1 %	2.1 %	Elastic Yield Point
	2.2 %	2.2 %	Flexural; DIN EN ISO 178
	3.1 %	3.1 %	Elongation at Maximum Force; DIN EN ISO 527
Tensile Modulus	3.10 GPa	450 ksi	DIN EN ISO 527
Flexural Strength	68.0 MPa	9860 psi	DIN EN ISO 178

Mechanical Properties	Metric 68.0 MPa	English 5000 psi	Comments DIN EN ISO 178
	103 MPa	14900 psi	Outer Fiber Stress at 3.5% Outer Fiber Strain; DIN EN ISO 178
Flexural Modulus	3.32 GPa	482 ksi	DIN EN ISO 178
Compressive Yield Strength	115 MPa	16700 psi	DIN EN ISO 604
Compressive Strength	95.0 MPa	13800 psi	Elastic Limit
	112 MPa	16200 psi	break; DIN EN ISO 604
	115 MPa	16700 psi	DIN EN ISO 604
	48.0 MPa	6960 psi	
	@Time 3.60e+7 sec	@Time 10000 hour	
	86.0 MPa	12500 psi	
	@Time 360000 sec	@Time 100 hour	
	102 MPa	14800 psi	
	@Time 36.0 sec	@Time 0.0100 hour	
	19.0 MPa	2760 psi	DIN EN ISO 604
	@Strain 3.50 %	@Strain 3.50 %	
Compressive Modulus	4.011 GPa	581.7 ksi	DIN EN ISO 604
Fatigue Strength	35.0 MPa	5080 psi	1 Hz
	@# of Cycles 1.00e+6	@# of Cycles 1.00e+6	
K Factor (ISO)	0.40 μm/km	0.40 μm/km	
	@Temperature 100 °C	@Temperature 212 °F	
	0.50 μm/km	0.50 μm/km	
	@Temperature 200 °C	@Temperature 392 °F	
	0.50 μm/km	0.50 μm/km	
	@Temperature 240 °C	@Temperature 464 °F	
	1.5 μm/km	1.5 μm/km	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Charpy Impact Unnotched	NB	NB	EN ISO 179/1eU
Charpy Impact, Notched	2.47 J/cm ²	11.8 ft-lb/in ²	EN ISO 179/1eA
	0.17	0.17	

Mechanical Properties	Metric @ Temperature 20.0 °C	English @ Temperature 68.0 °F	Dry Operation Comments
Coefficient of Friction, Dynamic	0.20	0.20	Dry Operation
	@Temperature 100 °C	@Temperature 212 °F	
Coefficient of Friction, Static	0.19	0.19	Dry Operation
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Tensile Creep Modulus, 1000 hours	3200 MPa	464000 psi	At 1% Deformation; DIN 53444
Limiting Pressure Velocity	0.83333 MPa-m/sec	23792 psi-ft/min	v = 1m/min
	2.50 MPa-m/sec	71400 psi-ft/min	v = 200m/min
	2.567 MPa-m/sec	73280 psi-ft/min	v = 10m/min
	3.90 MPa-m/sec	111000 psi-ft/min	v = 100m/min
Compression Set	6.0 %	6.0 %	Elastic Compression Limit
	9.9 %	9.9 %	Nominal Compressive Yield Strain; DIN EN ISO 604
	9.9 %	9.9 %	Nominal Compressive Strain at Compressive Strength; DIN EN ISO 604

Thermal Properties	Metric	English	Comments
CTE, linear	40.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	22.2 $\mu\text{in}/\text{in}\cdot\text{°F}$	ISO E 830
	@Temperature ≤ 100 °C	@Temperature ≤ 212 °F	
	47.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	26.1 $\mu\text{in}/\text{in}\cdot\text{°F}$	ISO E 831
	@Temperature ≤ 150 °C	@Temperature ≤ 302 °F	
Specific Heat Capacity	1.18 J/g-°C	0.282 BTU/lb-°F	DSC
Melting Point	390 °C	734 °F	DSC
Maximum Service Temperature, Air	250 °C	482 °F	Pressed Bushings
	280 °C	536 °F	Continuous
	320 °C	608 °F	Short Term (3h)
Deflection Temperature at 1.8 MPa (264 psi)	250 °C	482 °F	DIN EN ISO 75
Glass Transition Temp, Tg	240 °C	464 °F	DSC
Flammability, UL94	V-0	V-0	

Thermal Properties	Metric	English	Comments
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 93
Surface Resistance	5.00e+12 ohm	5.00e+12 ohm	IEC 93
Dielectric Constant	3.1	3.1	IEC 250
	@Frequency 110 Hz	@Frequency 110 Hz	
Dielectric Strength	21.0 kV/mm	533 kV/in	IEC 243
Dissipation Factor	0.00080	0.00080	IEC 112
	0.078	0.078	
	@Frequency 1.00 Hz	@Frequency 1.00 Hz	
Comparative Tracking Index	42 V	42 V	IEC 112

Descriptive Properties	Value	Comments
Alignment Adjustment	4	Nominal Scale: 1, low; 10, high
Chemical Sterilization	10	Nominal Scale: 1, low; 10, high
Color	Ochre	
Creep Resistance	3	Nominal Scale: 1, low; 10, high
Dimensional Stability with Thermal Expansion	9	Nominal Scale: 1, low; 10, high
Free from Silicon	Applicable	
Gamma-rays Radiation Sterilization	7	Nominal Scale: 1, low; 10, high
Machined Parts	Applicable	
Moist Heat Sterilization	6	Nominal Scale: 1, low; 10, high
Resistance Against dust, Dirt, Abrasive Substances	5	Nominal Scale: 1, low; 10, high
Resistance Against Hot Water	120	
Resistance to Chemicals	5	Nominal Scale: 1, low; 10, high
Resistant Against Disinfectant	Applicable	
Rods up to Øe (de)	Applicable	
ROHS/WEEE	Applicable	

Sheets up to Maximum Thickness Descriptive Properties	Applicable Value	Comments
Sliding Velocity	350	
Suitable for Outdoor Use	9	Nominal Scale: 1, low; 10, high
Suitable for Vacuum	Applicable	
UV Rays Resistance	9	Nominal Scale: 1, low; 10, high

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