

Wolf Kunststoff ZEDEX® ZX-324V11T A3L PEEK Polymer, Reinforced

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK)

Material Notes:

Main Characteristics: Stress resistant; High impact strength at 196 ° C Applications: Shipbuilding; Chemical Engineering; Automotive Technology; Machine Tools Information provided by Zedex

Order this product through the following link:

http://www.lookpolymers.com/polymer_Wolf-Kunststoff-ZEDEX-ZX-324V11T-A3L-PEEK-Polymer-Reinforced.php

Physical Properties	Metric	English	Comments
Density	1.34 g/cc	0.0484 lb/in³	ISO 1183
Water Absorption	0.050 % @Temperature 23.0 °C	0.050 % @Temperature 73.4 °F	RMC 93%; DIN EN ISO 62
Moisture Absorption at Equilibrium	0.10 %	0.10 %	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	190 MPa	27600 psi	DIN 2039
Tensile Strength at Break	98.0 MPa	14200 psi	DIN EN ISO 527
Tensile Strength	113 MPa	16400 psi	DIN EN ISO 527
Tensile Stress	29.0 MPa @Strain 1.00 %, Time 3.60e+6 sec	4210 psi @Strain 1.00 %, Time 1000 hour	DIN 53444
Tensile Strength, Yield	78.0 MPa	11300 psi	Elastic Limit
	113 MPa	16400 psi	DIN EN ISO 527
Elongation at Break	9.0 %	9.0 %	
	9.0 %	9.0 %	DIN EN ISO 527
Elongation at Yield	1.3 %	1.3 %	Elastic Yield Point
	5.0 %	5.0 %	Elongation at Maximum Force; DIN EN ISO 527
	5.0 %	5.0 %	DIN EN ISO 527
	6.6 %	6.6 %	Flexural; DIN EN ISO 178

Tensile Modulus Mechanical Properties	4.40 GPa Metric	638 ksi English	DIN EN ISO 527 Comments
Flexural Strength	119 MPa	17300 psi	Outer Fiber Stress at 3.5% Outer Fiber Strain; DIN EN ISO 178
	159 MPa	23100 psi	DIN EN ISO 178
Flexural Modulus	2.937 GPa	426.0 ksi	DIN EN ISO 178
Compressive Yield Strength	146 MPa	21200 psi	DIN EN ISO 604
Compressive Strength	122 MPa	17700 psi	Elastic Limit
	40.0 MPa	5800 psi	
	@Time 3.60e+7 sec	@Time 10000 hour	
	103 MPa	14900 psi	
	@Time 360000 sec	@Time 100 hour	
	130 MPa	18900 psi	
	@Time 36.0 sec	@Time 0.0100 hour	
	36.0 MPa	5220 psi	DIN EN ISO 604
	@Strain 3.50 %	@Strain 3.50 %	
Compressive Modulus	2.85 GPa	413 ksi	DIN EN ISO 604
Fatigue Strength	65.0 MPa	9430 psi	1 Hz
	@# of Cycles 1.00e+6	@# of Cycles 1.00e+6	
K Factor (ISO)	1.2 µm/km	1.2 µm/km	
	@Temperature 200 °C	@Temperature 392 °F	
	3.7 µm/km	3.7 µm/km	
	@Temperature 240 °C	@Temperature 464 °F	
	9.1 µm/km	9.1 µm/km	
	@Temperature 100 °C	@Temperature 212 °F	
	12 µm/km	12 µm/km	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Charpy Impact Unnotched	NB	NB	EN ISO 179/1eU
Charpy Impact, Notched	0.620 J/cm²	2.95 ft-lb/in²	EN ISO 179/1eA
Coefficient of Friction, Dynamic	0.14	0.14	Dry Operation
	@Temperature 20.0 °C	@Temperature 68.0 °F	
	0.21	0.21	

Mechanical Properties	Metric @ Temperature 100 °C	English @ Temperature 212 °F	Dry Operation Comments
Coefficient of Friction, Static	0.18 @Temperature 20.0 °C	0.18 @Temperature 68.0 °F	Dry Operation
Tensile Creep Modulus, 1000 hours	2780 MPa	403000 psi	At 1% Deformation; DIN 53444
Limiting Pressure Velocity	0.300 MPa-m/sec	8570 psi-ft/min	v = 200m/min
	0.33333 MPa-m/sec	9516.6 psi-ft/min	v = 100m/min
	0.91666 MPa-m/sec	26171 psi-ft/min	v = 10m/min
	1.00 MPa-m/sec	28600 psi-ft/min	v = 1m/min
Compression Set	8.3 %	8.3 %	Elastic Compression Limit
	12.5 %	12.5 %	Nominal Compressive Yield Strain; DIN EN ISO 604

Thermal Properties	Metric	English	Comments
CTE, linear	58.0 µm/m-°C @Temperature <=100 °C	32.2 µin/in-°F @Temperature <=212 °F	ISO E 830
	58.0 µm/m-°C @Temperature <=150 °C	32.2 µin/in-°F @Temperature <=302 °F	ISO E 831
Specific Heat Capacity	0.900 J/g-°C	0.215 BTU/lb-°F	DSC
Thermal Conductivity	0.240 W/m-K	1.67 BTU-in/hr-ft²-°F	DIN 52612
Melting Point	340 °C	644 °F	DSC
Maximum Service Temperature, Air	140 °C	284 °F	Pressed Bushings
	250 °C	482 °F	Continuous
	260 °C	500 °F	Short Term (3h)
Deflection Temperature at 1.8 MPa (264 psi)	165 °C	329 °F	DIN EN ISO 75
Glass Transition Temp, Tg	146 °C	295 °F	DSC
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	4.00e+15 ohm-cm	4.00e+15 ohm-cm	IEC 93

Electrical Properties	Metric	English	Comments
Dielectric Constant	3.0	3.0	IEC 250
	@Frequency 110 Hz	@Frequency 110 Hz	
Dielectric Strength	26.0 kV/mm	660 kV/in	IEC 243
Dissipation Factor	0.0020	0.0020	IEC 112
	@Frequency 1.00 Hz	@Frequency 1.00 Hz	

Descriptive Properties	Value	Comments
Alignment Adjustment	4	Nominal Scale: 1, low; 10, high
Chemical Sterilization	10	Nominal Scale: 1, low; 10, high
Color	Black	
Creep Resistance	5	Nominal Scale: 1, low; 10, high
Dimensional Stability with Thermal Expansion	5	Nominal Scale: 1, low; 10, high
Free from Silicon	Applicable	
Gamma-rays Radiation Sterilization	10	Nominal Scale: 1, low; 10, high
High Precision Bushings (negative clearance)	Applicable	
Injection Molded Parts	Applicable	
Machined Parts	Applicable	
Moist Heat Sterilization	10	Nominal Scale: 1, low; 10, high
Plastic Granules	Applicable	
Resistance Against dust, Dirt, Abrasive Substances	7	Nominal Scale: 1, low; 10, high
Resistance Against Hot Water	200	
Resistance to Chemicals	8	Nominal Scale: 1, low; 10, high
Resistant Against Disinfectant	Applicable	
Rods up to Øe (de)	Applicable	
ROHS/WEEE	Applicable	
Sheets up to Maximum Thickness	Applicable	
Sliding Velocity	100	

Descriptive Properties Suitable for Outdoor Use	Value	Comments Nominal Scale: 1, low; 10, high
Suitable for Use in Water	Applicable	
Suitable for Vacuum	Applicable	
Tubes (hollow rods) up to Øe (de)	Applicable	
UV Rays Resistance	9	Nominal Scale: 1, low; 10, high
UV-Sterilization	7	Nominal Scale: 1, low; 10, high

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China