# Wolf Kunststoff ZEDEX® ZX-324VMT A3B PEEK, Fiber Reinforced

**Category :** Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK) , Polyetheretherketone, PEEK, PTFE-Filled

**Material Notes:**

Main Characteristics: Maximum rigidity; Very good wear resistance; Low stick-slip tendency; Stress resistantApplications: Shipbuilding; Chemical Engineering; Automitve Technology; Machine ToolsInformation provided by Zedex

Order this product through the following link:
http://www.lookpolymers.com/polymer_Wolf-Kunststoff-ZEDEX-ZX-324VMT-A3B-PEEK-Fiber-Reinforced.php

| Physical Properties | Metric | English | Comments |
|---|---|---|---|
| Density | 1.48 g/cc | 0.0535 lb/in³ | ISO 1183 |
| Water Absorption | 0.050 %<br>@Temperature 23.0 °C | 0.050 %<br>@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 | 88 | 88 | DIN 53505 |
| Ball Indentation Hardness | 231 MPa | 33500 psi | DIN 2039 |
| Tensile Strength at Break | 2.70 MPa | 392 psi | DIN EN ISO 527 |
| Tensile Strength | 142 MPa | 20600 psi | DIN EN ISO 527 |
| Tensile Stress | 44.0 MPa<br>@Strain 1.00 %,<br>Time 3.60e+6 sec | 6380 psi<br>@Strain 1.00 %,<br>Time 1000 hour | DIN 53444 |
| Tensile Strength, Yield | 64.0 MPa | 9280 psi | Elastic Limit |
| | 120 MPa | 17400 psi | DIN EN ISO 527 |
| Elongation at Break | 4.5 % | 4.5 % | |
| | 4.5 % | 4.5 % | DIN EN ISO 527 |
| Elongation at Yield | 3.9 % | 3.9 % | Elongation at Maximum Force; DIN EN ISO 527 |
| Tensile Modulus | 7.80 GPa | 1130 ksi | DIN EN ISO 527 |
| Flexural Strength | 150 MPa | 21800 psi | Outer Fiber Stress at 3.5% Outer Fiber Strain; DIN EN ISO 178 |
| | 210 MPa | 30500 psi | DIN EN ISO 178 |

| Mechanical Properties | Metric | English | Comments |
|---|---|---|---|
| Compressive Strength | 123 MPa | 17800 psi | Elastic Limit |
| | 60.0 MPa<br>@Time 3.60e+7 sec | 8700 psi<br>@Time 10000 hour | |
| | 109 MPa<br>@Time 360000 sec | 15800 psi<br>@Time 100 hour | |
| | 131 MPa<br>@Time 36.0 sec | 19000 psi<br>@Time 0.0100 hour | |
| | 95.0 MPa<br>@Strain 3.50 % | 13800 psi<br>@Strain 3.50 % | DIN EN ISO 604 |
| Compressive Modulus | 5.454 GPa | 791.0 ksi | DIN EN ISO 604 |
| Fatigue Strength | 105 MPa<br>@# of Cycles 1.00e+6 | 15200 psi<br>@# of Cycles 1.00e+6 | 1 Hz |
| K Factor (ISO) | 0.40 µm/km<br>@Temperature 20.0 °C | 0.40 µm/km<br>@Temperature 68.0 °F | |
| | 1.8 µm/km<br>@Temperature 100 °C | 1.8 µm/km<br>@Temperature 212 °F | |
| | 3.6 µm/km<br>@Temperature 200 °C | 3.6 µm/km<br>@Temperature 392 °F | |
| | 5.2 µm/km<br>@Temperature 240 °C | 5.2 µm/km<br>@Temperature 464 °F | |
| Charpy Impact Unnotched | 2.30 J/cm² | 10.9 ft-lb/in² | EN ISO 179/1eU |
| Charpy Impact, Notched | 0.930 J/cm² | 4.43 ft-lb/in² | EN ISO 179/1eA |
| Coefficient of Friction, Dynamic | 0.080<br>@Temperature 100 °C | 0.080<br>@Temperature 212 °F | Dry Operation |
| | 0.10<br>@Temperature 20.0 °C | 0.10<br>@Temperature 68.0 °F | Dry Operation |
| Coefficient of Friction, Static | 0.12<br>@Temperature 20.0 °C | 0.12<br>@Temperature 68.0 °F | Dry Operation |
| Tensile Creep Modulus, 1000 hours | 4560 MPa | 661000 psi | At 1% Deformation; DIN 53444 |

| Mechanical Properties | Metric | English | Comments |
|---|---|---|---|
| Limiting Pressure Velocity | 0.250 MPa-m/sec | 7140 psi-ft/min | v = 1m/min |
| | 0.350 MPa-m/sec | 9990 psi-ft/min | v = 100m/min |
| | 0.46667 MPa-m/sec | 13323 psi-ft/min | v = 200m/min |
| | 0.635 MPa-m/sec | 18100 psi-ft/min | v = 10m/min |
| Compression Set | 4.8 % | 4.8 % | Elastic Compression Limit |

| Thermal Properties | Metric | English | Comments |
|---|---|---|---|
| CTE, linear | 35.0 µm/m-°C<br>@Temperature <=100 °C | 19.4 µin/in-°F<br>@Temperature <=212 °F | ISO E 830 |
| | 38.0 µm/m-°C<br>@Temperature <=150 °C | 21.1 µin/in-°F<br>@Temperature <=302 °F | ISO E 831 |
| Specific Heat Capacity | 1.06 J/g-°C | 0.253 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) | 270 °C | 518 °F | DIN EN ISO 75 |
| Glass Transition Temp, Tg | 146 °C | 295 °F | DSC |
| Flammability, UL94 | V-0 | V-0 | |
| Oxygen Index | 43 % | 43 % | DIN EN ISO 4589 |

| Electrical Properties | Metric | English | Comments |
|---|---|---|---|
| Volume Resistivity | 30000 ohm-cm | 30000 ohm-cm | IEC 93 |
| Surface Resistance | 19000 ohm | 19000 ohm | IEC 93 |
| Dielectric Constant | 3.3<br>@Frequency 110 Hz | 3.3<br>@Frequency 110 Hz | IEC 250 |
| Dielectric Strength | 0.100 kV/mm | 2.54 kV/in | IEC 243 |
| Dissipation Factor | 0.0040 | 0.0040 | IEC 112 |

| Electrical Properties | Metric | English | Comments |
|---|---|---|---|
| | @Frequency 1.00 Hz | @Frequency 1.00 Hz | |

| Descriptive Properties | Value | Comments |
|---|---|---|
| Alignment Adjustment | 1 | Nominal Scale: 1, low; 10, high |
| Chemical Sterilization | 10 | Nominal Scale: 1, low; 10, high |
| Color | Anthracite | |
| Creep Resistance | 7 | Nominal Scale: 1, low; 10, high |
| Dimensional Stability with Thermal Expansion | 7 | Nominal Scale: 1, low; 10, high |
| Free from Silicon | Applicable | |
| Gamma-rays Radiation Sterilization | 7 | Nominal Scale: 1, low; 10, high |
| Injection Molded Parts | Applicable | |
| Machined Parts | Applicable | |
| Moist Heat Sterilization | 7 | Nominal Scale: 1, low; 10, high |
| Plastic Granules | Applicable | |
| Resistance Against dust, Dirt, Abrasive Substances | 10 | 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 | |
| Suitable for Outdoor Use | 6 | 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 |

| Descriptive Properties | Value | Comments |
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| UV-Sterilization | 10 | Nominal Scale: 1, low; 10, high |

## Contact Songhan Plastic Technology Co.,Ltd.

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