



**MATERIAL
WIZARD™**

MAGIC SOLUTIONS REAL RESULTS

Exablend® POK GF50 S4

Technical DataSheet | Supplied by Material Wizard



Technical DataSheet

Exablend® POK GF50 S4 is a high-performance polyketone (PK) reinforced with 50% glass fiber. This formulation provides extremely high stiffness, superior mechanical properties, and excellent wear resistance. The material combines dimensional stability, chemical resistance, and low water absorption, making it suitable for demanding structural and functional applications.

Product Type POK (Polyketone) > POK GF50

Applications/ Recommended for Automotive structural parts
Under-the-hood components
Electronic housings
Replacement for metal
Precision gears
Precision engineering elements.

Key Features Exceptional stiffness and strength
Chemical and fuel resistance
Excellent wear resistance
Low water absorption
Dimensional stability
High thermal resistance

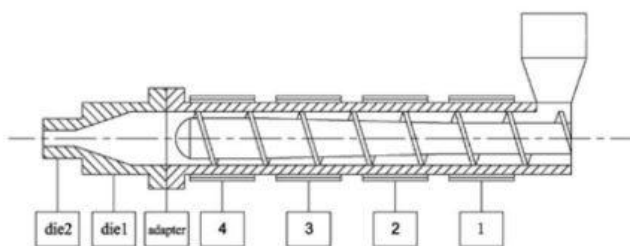
Exablend® POK GF50 S4 Typical Properties

Physical	Value & Unit	Test Condition	Test Method
Density	1.65 g/cm ³	At 23°C	ISO 1183
Glass Fiber Content	50%		internal
Linear Mold Shrinkage, Flow	0.1-0.3 %		ISO 294-4
Linear Mold Shrinkage, Transverse	0.2-0.4 %		ISO 294-4
Mechanical	Value & Unit	Test Condition	Test Method
Elongation at Break	1.6%	5mm/min	ISO 527-1/-2
Flexural Modulus	11000 MPa	2 mm/min	ISO 178
Flexural Strength	220 MPa	2 mm/min	ISO 178
Impact Strength, Notched Izod	14 kJ/m ²	23°C	ISO 180/1A
Impact Strength, Unnotched Izod	60 kJ/m ²	23°C	ISO 180/1U
Tensile Strength	165 MPa	50mm/min	ISO 527
Tensile Modulus	17000 MPa	5 mm/min	ISO 527

Thermophysical	Value & Unit	Test Condition	Test Method
Temp. of deflection under load (HDT)	215°C	0.45 MPa	ISO 75-1/-2
Temp. of deflection under load (HDT)	205°C	1.8 MPa	ISO 75-1/-2
Melting point	220°C	10°C/min	ISO 11357-1/-3

Processing Recommendations

Processing Conditions > Injection Molding:



	Zone1	Zone2	Zone3	Zone4	Adaptor	Die1	Die2
°C	220	225	230	235	240	245	245

Mold temperature:

80°C (for optimal crystallization and dimensional stability)

Molding pressure:

80–130 MPa

Injection speed:

medium to high

Recycling:

up to 25% allowed without significant loss of properties, depending on processing conditions

Drying:

Our materials are supplied pre-dried in moisture-proof bags. However, dry materials quickly absorb moisture from the air. Drying time and temperature (only necessary for bags open for more than 1 hour): 2-3 hours at 90-110°C to 0.02% moisture

Disclaimer

Standard Disclaimer

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and are subject to change without notice. It is expressly understood and agreed that you assume and hereby release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent. Typical Properties data is provided as general information only. Property values are approximate and are not part of the product specifications.

Contact Information

Email: yyekimov@gmail.com
Website: materialwizard.com.ua
Marketplace: polyamide.prom.ua
Phone: + 38 050 323 23 21

