InstaVoxel

PEEK

Technical Datasheet

Key Features

- Good processability
- High thermal deformation temperature
- Inherent flame retardant
- High energy radiation resistant
- Good creep resistance
- Good sliding and wear resistance
- Very good chemical resistance
- Resistance to hydrolysis and superheated steam

Common Applications

- Chemical Engineering
- Mechanical Engineering
- Energy sector
- Electronics industry
- Food Technology
- Oil and gas
- Aerospace
- Automobile
- Electronic semiconductor

Material Description

PEEK-GF30 is a 30% glass fiber-reinforced grade of Polyetheretherketone (PEEK), offering excellent dimensional stability, along with superior resistance to chemicals, corrosion, and creep. The addition of glass fibers significantly reduces its expansion rate and increases its flexural modulus, making it much more rigid. These properties make PEEK-GF30 ideal for structural applications requiring enhanced strength, stiffness, and stability, particularly in high-temperature environments exceeding 300°F (150°C). Its robust performance in demanding conditions ensures it is often chosen for applications where long-term durability is critical.

Mechanical Properties

Ultimate Tensile Strength	113 MPa
Tensile Yield Strength	80 MPa
Hardness	Rockwell M103
Elongation at Break	5%

Physical Properties

Density	0.056 lb/in³ (1.54 g/cm³)
Thermal Conductivity	0.43W/m.K
Modulus of Elasticity	7,000 MPa
Melting Point	340 °C

Technical Assistance

Our knowledgeable staff, supported by our in-house team of expert metallurgists and engineers, is ready to assist you with any technical inquiries.

InstaVoxel™ - On-Demand Manufacturing Expert

859 Willard Street Suite 400, Quincy MA 02169 USA
+1 (617) 302-1629 | info@instavoxel.com
www.instavoxel.com

InstaVoxel's quality control system is ISO-9001 certified, and all our partners hold relevant certifications.

ISO 9001:2015

UKAS MANAGEMENT SYSTEMS 0142