

Product Information

VESTAKEEP® 4000 CF20

CARBON FIBER-REINFORCED (20%), HIGH VISCOSITY POLYETHER ETHER KETONE



VESTAKEEP® 4000 CF20 is a carbon fiber reinforced (20%) polyether ether ketone for injection molding.

The semi-crystalline polymer features superior mechanical, thermal, and chemical resistance. Parts made from VESTAKEEP® 4000 CF20 are of low flammability.

VESTAKEEP® 4000 CF20 can be processed by common injection molding machines for thermoplastics.

We recommend a melt temperature between 380°C and 400°C during the injection molding process. The mold temperature should be within a range of 160°C to 200°C, preferably 180°C.

VESTAKEEP® 4000 CF20 is supplied as granules in 25 kg boxes with moisture-proof polyethylene liners.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

Pigmentation may affect values.

For information about processing VESTAKEEP® 4000 CF20, please follow the general recommendations in our brochure "VESTAKEEP® PEEK Processing Guidelines."

The values presented are typical or average values, they do not constitute a specification.

Key Features

Industrial Sector

Aircraft and Aerospace, Industry and Engineering, Energy, Oil and Gas

Processing

Injection molding

Delivery form

Pellets, Granules

Resistance to

Heat (thermal stability), Fire / burn

Additives

Carbon fibers

Mechanical properties ISO

Tensile modulus

dry

16900

Unit

MPa

Test Standard

ISO 527

Tensile strength	200	MPa	ISO 527
Stress at break	200	MPa	ISO 527
Strain at break, B	2.5	%	ISO 527

Physical properties	dry	Unit	Test Standard
Density	1360	kg/m ³	ISO 1183
Moisture content	0.03	Gew.-%	ISO 15512
Density	1360	kg/m ³	ASTM D 792

Rheological properties	dry	Unit	Test Standard
Melt volume-flow rate, MVR	42	cm ³ /10min	ISO 1133
Temperature	400	°C	-
Load	21.6	kg	-
Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
Molding shrinkage, normal	1.0	%	ISO 294-4, 2577

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	420	°C	ISO 294
Injection Molding, mold temperature	200	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Characteristics

Applications

Electrical and Electronical