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.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM OR VISIT OUR PRODUCT AT WWW.INDUSTRIAL.VESTAKEEP.COM

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	dry	Unit	Test Standard
Tensile modulus	**16900**	MPa	ISO 527

EVONIK Leading Beyond Chemistry

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/m³	ISO 1183
Moisture content	**0.03**	Gew.-%	ISO 15512
Density	**1360**	kg/m³	ASTM D 792

Rheological properties	**dry**	**Unit**	**Test Standard**
Melt volume-flow rate, MVR	**42**	cm³/10min	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

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