

Product Texts

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

| Processing/Physical Characteristics | Value | Unit | Test Standard |
|--|-------------|-----------|-----------------|
| ISO Data | | | |
| ^[C] Melt volume-flow rate, MVR | 42 | cm³/10min | ISO 1133 |
| Temperature | 400 | °C | - |
| Load | 21.6 | kg | - |
| ^[C] Molding shrinkage, parallel | 0.7 | % | ISO 294-4, 2577 |
| ^[C] Molding shrinkage, normal | 1.0 | % | ISO 294-4, 2577 |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|--------------------------------|--------------|------|---------------|
| ISO Data | | | |
| ^[C] Tensile Modulus | 16859 | MPa | ISO 527 |
| ^[C] Stress at break | 200 | MPa | ISO 527 |
| ^[C] Strain at break | 2.5 | % | ISO 527 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|------------------------|-------------|-------|---------------|
| ^[C] Density | 1360 | kg/m³ | ISO 1183 |

[C]: CAMPUS

| Test specimen production | Value | Unit | Test Standard |
|--|------------|------|---------------|
| ISO Data | | | |
| ^[C] 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 |

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Features

Thermal Stability

Chemical Resistance

General Chemical Resistance

Regional AvailabilityNorth America, Europe, Asia Pacific, South and Central America,
Near East/Africa