

# Vestakeep® 4000GF30 30% Glass Fiber Reinforced PEEK Granules

**Grade:** Vestakeep® 4000GF30

**Formula:** PEEK - 30% GFR

**Nominal Granule Size:** 6mm

**Weight:** 1000g

**Viscosity:** High Viscosity

**UOM Code:** 600-968-76

**SKU:** 1000076721-group

**Product Code:** EK32-GL-000100

## Material Properties for Polymers

### Chemical Resistance

Element	Value
Acids - concentrated	Good-Poor
Acids - dilute	Good
Alcohols	Good
Alkalis	Good
Aromatic hydrocarbons	Good
Greases and Oils	Good
Halogenated Hydrocarbons	Good
Halogens	Good-Poor
Ketones	Good-Poor

### Electrical Properties

Element	Value
Dielectric constant @ 1kHz	3.2-3.4
Dissipation factor @ 1MHz	0.002
Dielectric strength( kV mm <sup>-1</sup> )	16.5-19.8

### Physical Properties

Element	Value
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Flammability	V-0
Radiation resistance	Good
Resistance to Ultra-violet	Fair
Limiting oxygen index( % )	34-36
Water absorption - over 24 hours( % )	0.06-0.12
Density( gcm <sup>3</sup> )	1.49-1.54

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Hardness - Rockwell	M98-108
Poisson's ratio	0.39-0.41
Elongation at break( % )	02-Mar
Compressive modulus( GPa )	8.6-11
Tensile strength( MPa )	155-197

## **Thermal Properties**

<b>Element</b>	<b>Value</b>
Heat-deflection temperature - 0.45MPa( C )	306-356
Heat-deflection temperature - 1.8MPa( C )	288-315
Lower working temperature( C )	-60
Upper working temperature( C )	260-280
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	1000-1100
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	0.197-0.213
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	20-30

## **Pultrusions**

<b>Element</b>	<b>Value</b>
Compressive strength( MPa )	147-154