

PRODUCT

# fluteck<sup>®</sup> K301

(Compression moulded 30% Carbon Fibers reinforced Polyetheretherketone)

	Property	Method	Units	Specification
Physical	Specific gravity	ASTM D 792	g/cm <sup>3</sup>	1,40
	Water absorption	ASTM D 570 (24 hour)	%	0,10
	Mold shrinkage, along flow	ASTM D 955	%	0,0-0,2
Mechanical	Elongation at break	ASTM D 638	%	≥1,3
	Tensile strength, Break at 23°C	ASTM D 638	MPa	≥ 200
	Tensile modulus	ASTM D 638	GPa	≥ 20
	Izod impact strength, notched	ASTM D 256	J/m	≥ 60
	Hardness Shore	ASTM D 2240	Shore D	≥ 80
	Hardness Rockwell, M scale	ASTM D 785	Rockwell	≥ 100
	Compressive Strength. 23°C	ASTM D 695	MPa	≥ 170
	Coefficient of static friction	ASTM D 3702	---	0,16 - 0,18
	Coefficient of dynamic friction	ASTM D 3702	---	0,14 - 0,17
Thermal	Peak melting temperature	ASTM D3418	°C	342-344
	Glass transition temperature	ASTM D3418	°C	143-146
	Specific heat capacity at 23°C	DSC	kJ kg <sup>-1</sup> °C <sup>-1</sup>	1,8
	Thermal conductivity at 23°C	DSC	W m <sup>-1</sup> K <sup>-1</sup>	0.95
	Deflection Temperature, 1.8MPa annealed	ASTM D648	°C	315
	CLTE- Flow direction, -50 to 50°C	ASTM E831	10 <sup>-6</sup> / °C	6,5
	Relative Thermal Index - mechanical w/o impact	UL746B	°C	240
	Relative Thermal Index - mechanical w/ impact	UL746B	°C	180
	Flammability	UL94	-	V-0



**fluteck® K301 – (Compression molding 30% Carbon Fibers reinforced PEEK)**

**General features:**

- Superior heat resistance and temperature performance
- Outstanding Chemical Resistance
- Low Coefficient of Friction
- Low Coefficient of Thermal Expansion
- High Stiffness
- Excellent Wear and Abrasion Resistance
- Fatigue Resistant
- Resistance to High Pressure Steam
- Flame Retardant
- Low smoke and toxic gas emission
- Heat Sterilizable
- Radiation (Gamma) Resistant
- Radiation Sterilizable
- Radiotranslucent
- Steam Sterilizable

**Note:** The information contained in this technical data sheet are based on our experience to date and we believe it to be reliable. It is intended only as a guide for use at your own discretion. We can not guarantee favourable results and assume no liability in connection with its use or the use of the products described. None of this information is to be taken as a licence to operate under, or a recommendations to infringe any existing patents. Prior to any application the above product has to be tested and accepted by the processor.  
In order to complete this data sheet, you can require us a DSC / TGA analysis and a microscope picture on our website <http://www.fluteck.com>

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® = registered trademark



Company Quality System UNI EN ISO 9001:2008 cert. CISQ/IIP N°061 first issue 1994

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