

# **AF804 Carbon Fibre filled PEEK**

AF804 is a carbon fibre reinforced semi-crystalline very high performance engineering thermoplastic for extremely demanding applications.

- Very high thermal mechanical bearing strength
- Excellent creep resistance
- Excellent radiation resistance
- High hardness and rigidity
- Good chemical resistance
- High maximum use temperature
- Excellent wear resistance

### **Typical Physical properties**

Property	Test Method	Value
Specific Gravity	ASTM D 792	1.44 g/cm <sup>3</sup>
Tensile Strength	ISO 527	115 MPa
Elongation	ISO 527	8%
Hardness	Rockwell M	107M
Izod Impact Strength	ISO 180/A 23 <sup>0</sup> C	Notched 10 KJ/m <sup>2</sup>
	ISO 180/U 23 <sup>0</sup> C	Un-notched 50 KJ/m <sup>2</sup>
Max Continuous use Temperature		260 <sup>o</sup> C
Heat Deflection Temperature	ISO75A-f	336 <sup>o</sup> C (1.8MPa)
Coefficient of Thermal Expansion	ASTM D696	1.5 x10 <sup>-5 O</sup> C
Colour		Black

Issued May 2020 AFT Fluorotec Technical Department All information is based on typical test results performed under specific conditions and limited sample size. This does not represent a legally binding guarantee of certain properties or the suitability for specific applications. All information is provided in good faith at time of print.

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#### Low temperature Data

Property	Temperature	Value
Flexural Modulus	23 <sup>0</sup> C	20.19 Gpa
	-20 °C	22.02 Gpa
	-60 <sup>0</sup> C	18.81 Gpa
Flexural Strength	23 <sup>o</sup> C	355.9 Mpa
	-20 °C	403.8 Mpa
	-60 <sup>0</sup> C	360.7 Mpa
Tensile Break	23 <sup>o</sup> C	226.9 Mpa
	-20 °C	258.4 Mpa
	-60 <sup>0</sup> C	282.4 Mpa
Tensile Elongation	23 <sup>o</sup> C	2.79%
	-20 °C	3.48%
	-60 °C	4.3%

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