

TECHNICAL DATA SHEET

Engineering plastic type CF

General notes:

- PA66/CF30 polyamide 66 reinforced with 30 wt% carbon fibre
- heat stabilized
- very high rigidity, excellent tensile and flexural strength, fatigue and creep resistance
- low friction, self lubricating properties, excellent wear and abrasion resistance
- good heat capability
- good chemical resistance (oils, grease, fuels, non polar solvents); not resistant to strong acids, alkalis and hot water or steam
- » ESD safe material, (avoid powder attraction, sparks generation, ignition sources)
- very low coefficient of linear thermal expansion
- typical applications include handling of sensitive components and devices (electronic components, micro-mechanical parts, glass and ceramic substrates, capillary, etc.)

Mechanical properties

Flexural modulus +23°C	17000 MPa	ASTM D 790
Flexural modulus +60°C	12000 MPa	ASTM D 790
Flexural modulus +90°C	9800 MPa	ASTM D 790
Flexural modulus +120°C	8000 MPa	ASTM D 790
Tensile strength +23°C	210 MPa	ISO 527
Tensile strength +60°C	159 MPa	ISO 527
Tensile strength +90°C	134 MPa	ISO 527
Tensile strength +120°C	117 MPa	ISO 527
Rockwell hardness M	>100	ASTM D 785
Izod-Impact strength (notched) +23°C	70 J/m	ASTM D 256
Charpy-Impact strength (unnotched) +23°C	30 kJ/m ²	DIN 53453

Thermal properties

Temp. of defl. under load (1.80 MPa)	256 °C	ASTM D648
Temp. of defl. under load (0.45 MPa)	260 °C	ASTM D648
Vicat softening temperature (50°C/h 50N)	254 °C	ISO 306
Coef. of lin. therm expansion, normal	2,80 E-5/°C	ASTM D 696
Continuous Use Temperature	130°C	20'000 h
Short Time Temperature	190°C	

Electrical properties

Surface resistivity	10 ² Ohm	100V
Comparative tracking index	<100 Volts	IEC 112
Decay time	< 0.1 sec	1000-10 V

This document contains information based on average values as obtained from the results of laboratory tests and observations made on the material. Ideal-Tek SA declines all responsibility from an improper use of the product described in this document.





Other properties

Density 1.28 g/ccm ISO 1183 Water absorption in water 23°C (24h) 0.60% ISO 62

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