

TECHNICAL DATA SHEET

# High-performance plastic type CP

**General notes:**

- » **PEEK** polyetheretherketone reinforced with carbon nano
- » very hard, rigid, high tensile and flexural strength, very high wear resistance
- » high heat capability (260-300°C), good dimension stability, low thermal linear expansion coefficient
- » excellent resistance to chemicals and aggressive agents, excellent resistance to thermal ageing
- » ESD-safe material 10E<sup>6</sup>
- » typical applications include handling of components in cleaning/chemical/assembly processes also at high temperature (soldering).

## Mechanical properties

Flexural modulus +23°C	<b>21400 MPa</b>	<i>ISO 178 ASTM D 790</i>
Flexural strength +23°C	<b>350 MPa</b>	<i>ISO 178 ASTM D 790</i>
Tensile modulus +23°C	<b>24000 MPa</b>	<i>ISO 527 ASTM D 638</i>
Tensile strength +23°C	<b>190 MPa</b>	<i>ISO 527 ASTM D 638</i>
Izod - Impact strength (notched) +23°C	<b>65 J/m</b>	<i>ISO 180/4A ASTM D 256</i>

## Thermal properties

Temp. of defl. under load (1.80 MPa)	<b>300 °C</b>	<i>ISO 75 ASTM D648</i>
Continuous Use Temperature	<b>260°C</b>	<i>20'000 h</i>
Short Time Temperature	<b>300°C</b>	

## Electrical properties

Surface resistivity	<b>10<sup>6</sup> Ohm</b>	
Decay time	<b>&lt; 0.2 sec</b>	<i>1000-10 V</i>

## Other properties

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

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