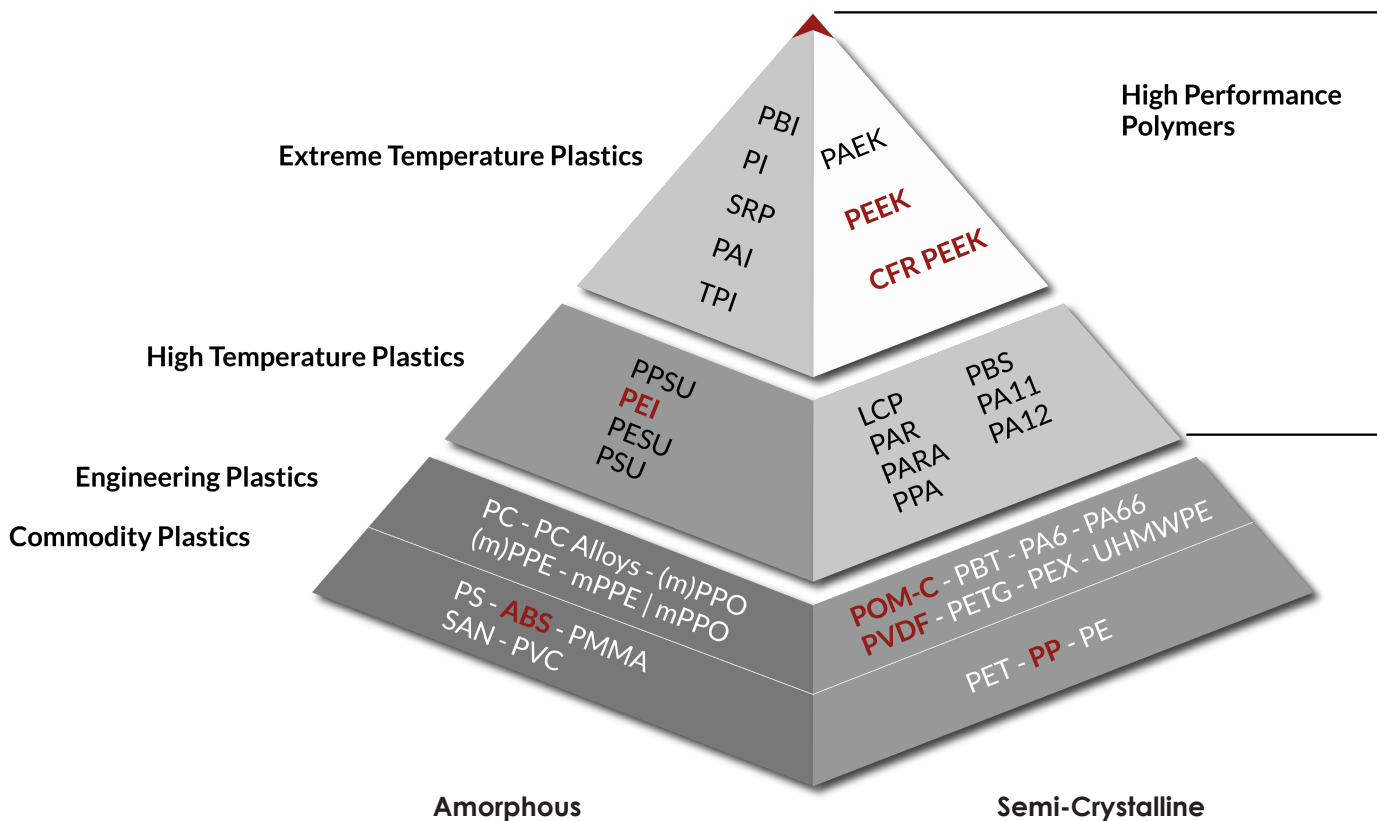


## TECHNICAL GRADE MATERIALS

# Apium Specialty Filaments - POM-C ESD



# POM-C ESD - Material Properties

## Antistatic and Sliding Properties

POM-C ESD is polyacetal copolymer containing antistatic agents. It is an engineering thermoplastic with good sliding properties.

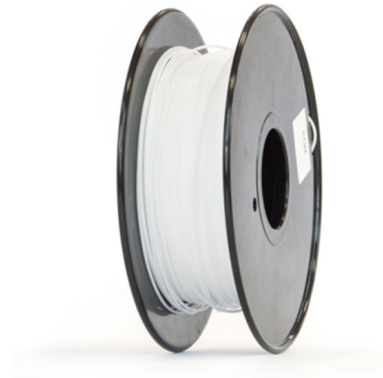
The industrial 3D printers of Apium are the only 3D printers capable of printing POM-C ESD. The Adaptive Heating System running on Apium's industrial 3D printers maintain the unique temperature management required. The material profiles (material specific printing parameters for optimal print) developed by Apium and the Apium Control Software for the machine operation guarantee the safety and the high quality during the printing process of POM-C ESD.

## Characteristics of 3D Printed Semi-Crystalline POM-C ESD

Apium advanced temperature management system in combination with Apium's material profiles eliminates commonly occurring printing failures and ensures the highest print quality.

Characteristics of 3D printed POM-C ESD with Apium:

- Good Resistance to Bases
- Good Sliding Properties
- Good Impact Toughness
- Antistatic
- Lightweight



POM-C ESD Filament - Semi-Crystalline Engineering Polymer



Engineering Solutions

# POM-C ESD - Mechanical Tests



MECHANICAL PROPERTIES	CONDITIONS	TEST METHOD	VALUE
Tensile Strength XY	23 °C, 48% Humidity	DIN EN ISO 527	27,8 MPa
Tensile Strength YZ	23 °C, 48% Humidity	DIN EN ISO 527	32,4 MPa
Tensile Elongation XY	23 °C, 48% Humidity	DIN EN ISO 527	4,3 %
Tensile Elongation YZ	23 °C, 48% Humidity	DIN EN ISO 527	5,3 %
Tensile Modulus XY	23 °C, 48% Humidity	DIN EN ISO 527	1,28 GPa
Tensile Modulus YZ	23 °C, 48% Humidity	DIN EN ISO 527	1,35 GPa
Charpy Impact Strength XY	23 °C, 48% Humidity	DIN EN ISO 179	16,09 kJ/m <sup>2</sup>
Charpy Impact Strength YZ	23 °C, 48% Humidity	DIN EN ISO 179	33,07 kJ/m <sup>2</sup>

Engineering Solutions

# POM-C ESD - Applications



## Aerospace

POM-C ESD is the material solution for your aviation applications involving fasteners, sealings, refuelling and fuel systems, engines and components with its excellent characteristics.

## Automotive

For sliding parts such as rollers and bearing bushings, POM-C is the optimal material solution. Apium`s POM-C contains anti-static additives offering the unique solutions to ensure the high standard of quality and functionality for your automotive applications.

## Oil & Gas

POM-C is your material solution for hydrophone housings and covers applications. Benefit from the key factors which POM-C offers for the devices in oil and gas applications.

## Semiconductors and Electronics

For your applications such as insulators, transformer housings, integrated circuits, coil bodies and many more, POM-C ESD is the material of choice with its outstanding characteristics.