



Apium PEEK 450 Natural

Polyetheretherketone, a high performance thermoplastic

Description of the Material:

Apium PEEK 450 Natural, Ø1,75 mm - High thermal resistance, high chemical resistance, high stress resistance, bio inert, low weight, post treatment possible

Applications:

PEEK is known for various applications, from food and drug, to electronical components to fixtures and chemical resistant parts. It is a well established polymer representing the high end region of thermoplastics.

Material Properties: Raw Material

| | Conditions | Test Methodology | Unit | Value |
|---------------------------------|-------------------------|------------------|-------------------|------------------|
| Mechanical Properties | | | | |
| Tensile Strength | 23° C | ISO 527 | MPa | 98 |
| Tensile Elongation | 23° C | ISO 527 | % | 45 |
| Young's Modulus | 23° C | ISO 527 | MPa | 4000 |
| Impact Strength (Charpy) | Notched, 23° C | ISO 179-1eU | kJ/m ² | 7.0 |
| Thermal Properties | | | | |
| Melting Temperature | | DIN 53765 | °C | 343 |
| Glass Transition Temperature | | DIN 53765 | °C | 143 |
| Decomposition Temperature | | | °C | 550 |
| Miscellaneous | | | | |
| Density | Semi-Crystalline | | g/cm ³ | 1.3 |
| Electrical Properties | | | | |
| Volume Resistivity | 23° C | IEC 60093 | Ωcm | 10 ¹⁶ |
| Surface Resistance | | IEC 60093 | Ω/sq | - |
| Fire, Smoke and Toxicity | | | | |
| Glow Wire Test | 2 mm Thickness | IEC 60695-2-12 | °C | 960 |
| Oxygen Index | 0.4 mm Thickness | ISO 4589 | % | 24 |
| | 3.2 mm Thickness | | | |
| Toxicity Index | CO ² Content | NES 713 | n/a | 0.074 |
| Flame Retardancy Class | | | | - |

Important remarks:

- 1) The data have been generated for Apium Additive Technologies in accordance with applicable national, international and internal standards and are intended for material comparison. Typical values may vary depending on part geometry and processing parameters.

For further information and detailed data please contact us.

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