

PEEK-OPTIMA™ Natural LT1 (Small Rods Ø 5-16 mm)

General Information

Product Description

High performance biocompatible thermoplastic material, PolyEtherEtherKetone (PEEK), semi crystalline. Stockshape rod diameters between 5–16 mm for machining, for use in long term human implantation. Colour natural/beige.

Typical Application Areas

For use in applications requiring high strength, high stiffness, and high ductility. Suitable for use in long-term implantable medical devices. Excellent sterilisation resistance. As PEEK is hygroscopic, drying before use is recommended. Further information is available upon request.

PEEK-OPTIMA™ is known for its outstanding biocompatibility, chemical resistance, and mechanical strength. PEEK-OPTIMA™ Natural provides a reliable and versatile solution for short and long-term implants.

Material Properties

Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.30	g/cm ³	ISO 1183
Water Absorption (Equilibrium, 23°C, 50% RH)	0.50	%	ISO 62
Crystallinity DSC	32.0	%	Internal Method
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield, 23°C)	108	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	16	%	ISO 527-2
Flexural Modulus (23°C)	4040	MPa	ISO 178
Flexural Stress			ISO 178
Yield, 23°C	178	MPa	
3.5% Strain, 23°C	134	MPa	
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength (23°C)	5.4	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Glass Transition Temperature (Onset)	145	°C	ISO 11357-2
Melting Temperature	340	°C	ISO 11357-3
Recrystallization Temperature (Peak)	292	°C	ISO 11357-3

Additional Information

Detailed data available on our website www.invibio.com or upon request.

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