

Product Texts

White pigmented polyether ether ketone for dental applications

VESTAKEEP® DC4420 R is a white pigmented polyether ether ketone (PEEK) grade rod stock that is especially designed for removable and fixed dentures, crowns and bridges.

Biocompatibility of VESTAKEEP® Dental

For VESTAKEEP® DC4420 R, biocompatibility has been tested following ISO 10993-1 recommendations for permanent mucous membrane contact.

The compound composition is optimised for high biocompatibility and superior mechanical, thermal and chemical resistance.

Biocompatibility test reports available for VESTAKEEP® DC4420 R

Standard	Description
ISO 10993-03	Genotoxicity: Salmonella Typhimurium Reverse Mutation Test (Ames Test)
ISO 10993-05	Cytotoxicity: Quantitative Growth Inhibition Test
ISO 10993-10	Irritation: Intracutaneous Reactivity
ISO 10993-10	Sensitization: Local Lymph Node Assay
ISO 10993-11	Acute Systemic Toxicity
ISO 10993-11	Subacute / Subchronic Toxicity 14 days
ISO 10993-18	Extraction Tests
USP Class VI	Acute Systemic Toxicity Intracutaneous Reactivity Muscle Implantation

Delivery of VESTAKEEP® Dental

VESTAKEEP® DC4420 R rods are available in different diameters and lengths.

Dimensions of VESTAKEEP® DC4420 R

Diameter	Standard length
6 and 8 mm	3000 mm
100 mm	1000 mm

Other custom dimensions are available on request.

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM

OR VISIT OUR PRODUCT AT WWW.EVONIK.COM/MEDICAL-TECHNOLOGY

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	4800	MPa	ISO 527
^[C] Yield stress	110	MPa	ISO 527
^[C] Yield strain	4	%	ISO 527
^[C] Nominal strain at break	10	%	ISO 527

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Temp. of deflection under load, 1.80 MPa	155	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	210	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	305	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	45	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.4	%	Sim. to ISO 62
^[C] Density	1510	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Delivery form

White, Semifinished product

Features

Thermal Stability

Chemical Resistance

General Chemical Resistance

Certifications

Medical Grade, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved

Applications

Medical

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa