

Product Texts

Gingiva-colored polyether ether ketone for dental applications

VESTAKEEP® DC4470 R is a gingiva-colored polyether ether ketone (PEEK) grade that is especially designed for removable dentures to meet the aesthetic demands of the patient.

Biocompatibility of VESTAKEEP® Dental

For VESTAKEEP® DC4470 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® DC4470 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® DC4470 R rods are available in different diameters and lengths.

Dimensions of VESTAKEEP® DC4470 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 | 4400 | MPa | ISO 527 |
| ^[C] Yield stress | 110 | MPa | ISO 527 |
| ^[C] Yield strain | 4.5 | % | 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 | 1360 | kg/m ³ | ISO 1183 |

[C]: CAMPUS

Characteristics**Delivery form**

Semifinished product

Features

Thermal Stability

Chemical Resistance

General Chemical Resistance

CertificationsMedical Grade, Biocompatibility ISO 10993, US Pharmacopeia
Class VI Approved**Applications**

Medical

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