

Product Texts

High viscosity, unreinforced polyether ether ketone designed for the medical device industry

VESTAKEEP® Care is the ideal materials for the fabrication of medical devices with short time contact to human blood, tissue or bone for up to 30 days. VESTAKEEP® Care Grades have a good biocompatibility, processability and the option to pigment.

VESTAKEEP® Care M40 R are semi finished goods based on the high viscosity VESTAKEEP® Care M40 G polymer resin.

The semi-crystalline polymer features superior thermal and chemical resistance.

Biocompatibility of VESTAKEEP® Care

Biocompatibility was tested following ISO10993-1 recommendations for a surface medical device with up to 30 days body contact.

The material fulfills the requirements of USP<88> class VI.

Tests were performed by independent, certified laboratories.

Biocompatibility tests for VESTAKEEP® Care:

Delivery of VESTAKEEP® Care

VESTAKEEP® Care M40 R rods can be produced in various diameters ranging from 6 mm up to 100 mm. The standard length is 1 m. Other dimensions are also available upon request.

Mechanical properties are evaluated on stock shapes test bars and further values are evaluated on injection molded samples.

The results shown have been generated from a low number of production lots. Therefore, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

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

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	11	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	4050	MPa	ISO 527
^[C] Yield stress	110	MPa	ISO 527
^[C] Yield strain	5	%	ISO 527
^[C] Nominal strain at break	40	%	ISO 527
^[C] Shore D hardness	84	-	ISO 7619-1

[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

VESTAKEEP® Care M40 R

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[C] Temp. of deflection under load, 0.45 MPa	205	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	305	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	60	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 1MHz	2.8	-	IEC 62631-2-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	0.5	%	Sim. to ISO 62
[C] Density	1300	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics**Delivery form**

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