

VESTAKEEP® D4 R



Natural colored polyether ether ketone for dental applications

VESTAKEEP® D4 R is natural colored polyether ether ketone (PEEK) rod stock that is especially designed for removable and fixed dentures crowns and bridges.

For VESTAKEEP® D4 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.

VESTAKEEP® D4 R rods are available in different diameters and lengths:

Dimensions of VESTAKEEP® D4 R

Diameter	Standard length*
6 to 20 mm	3000 mm
25 to 60 mm	2000 mm
70 to 100 mm	1000 mm

* Custom lengths are also available

Biocompatibility test reports available for D4 R

Standard	Description
ISO10993-03	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

For further information, please contact us at evonik-hp@evonik.com.

Properties of VESTAKEEP® D4 R

Properties		Test method	Unit	Value
Density	23°C	ISO 1183	g/cm ³	1.30
Tensile test		ISO 527-1 ISO 527-2		
Stress at yield			MPa	110
Strain at yield			%	4.8
Strain at break			%	> 10
Tensile modulus		ISO 527-1 ISO 527-2	MPa	4000
Flexural Test	23°C	ISO 178		
Flexural Modulus			MPa	4050
Flexural Strength			MPa	165
Izod notched impact strength	23°C	ISO 180		
			kJ/m ²	5.5
Linear thermal expansion longitudinal	23-55°C	ISO 11359	10 ⁻⁴ K ⁻¹	0.45
Melting range		ISO 11357		
DSC	2 nd heating		°C	approx. 340
Flammability acc. UL94	1.6 mm	IEC 60695		V-0
Water absorption	saturation	ISO 62	%	0.4

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