

Technical data sheet

High-performance polymer (PEEK) *Evonik VestaKEEP*



Manufacturer

**Evonik Resource Efficiency
GmbH**

Paul-Baumann-Str. 1
45764 Marl
Germany

Evonik Resource Efficiency

GmbH is certified according to:

- ISO 13485
- ISO 9001

■ Description

High-performance polymer (PEEK)

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Evonik VestaKEEP PEEK are milling blanks for use in CAD/CAM technology. The shade is based on A2. This composite consists of polyether ether ketone (PEEK). It offers outstanding bio-compatibility and has a bone-like flexibility, which makes the use for implant-supported prosthesis particularly suitable (off-peak effect)

The main advantages of PEEK are:

- high abrasion resistance
- white substructure
- low plaque affinity

■ Indication (permanent dentures)

- Fully anatomical crowns and bridges, as well as crown caps and veneer bridges for composite veneers (max 2 pontics and min. 13 mm² connector cross-section)
- Telescopic primary crowns

■ Contraindication

If allergies to the constituents are known, or if allergic reactions are possible, a restoration with PEEK must not be used.

■ Options

The milling blanks used in the CAD/CAM technology are based on the shade A2 and available 18, 20 and 24 mm high.

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■ Substructure design

Posterior teeth: 2 bridge units and max. 1 pontic.

The following values must not be less than the values specified below:

- Minimum wall thickness (without veneer) cervical: 0.7 mm
- Minimum wall thickness (without veneer) occlusal: 0.7 mm
- Connector cross sections in the anterior tooth area: > 12 mm²
- Connector cross sections in the posterior tooth area: > 16 mm²

■ Veneering

PEEK is ideal for a veneer in the shade of the teeth.

■ Attachment

An adhesive attachment should be considered for PEEK. The manufacturer's instructions regarding bonding and application must be observed.

■ Composition

No information provided by the manufacturer

■ Physical properties (guidelines)

Density ρ	1.52 g/cm ³
Flexural strength $\beta\beta$	178 [MPa] or [N/mm ²]
Elasticity modulus	4,800 [MPa] or [N/mm ²]
Water absorption/saturation - Test method acc. to ISO 62	0.4%