

PEEK DISC



Safe and Lightweight Composite Materials

PEEK Disc For CAD/CAM

PEEK has been used as an implant material in human medicine (finger prosthetics, intervertebral discs, joint prostheses) for 35 years. Thanks to the material's high biocompatibility, the mechanical material properties are similar to those of bone materials. But the mechanical values of pure PEEK are not enough to meet the stringent requirements in stomatology. Therefore, DEPRAG PEEK DISC is based on PEEK (polyether ether ketone), filled with inorganic particles, maintains the original physiological elasticity, and perfectly combines rigidity and excellent polishing performance.

Application

Application in Restorative Dentistry

► Removable partial denture clasps and bracket materials

In order to obtain a good retention force, most of the clasps and stents used clinically are made of metal, but they are heavy and uncomfortable, and the inherent metal color does not meet the aesthetic requirements. PEEK has low density, light weight, white color and is not easy to change color, which can make up for the lack of beauty and comfort of metal clasps.



► Fixed denture material

The average failure load of the implant three-unit fixed bridge made of PEEK material is (1430 ± 262) N, which can withstand the occlusal force in the molar area. In addition, compared with traditional ceramic materials, PEEK is lighter in weight and has more similar mechanical properties to dentin and enamel. As a tooth substitute material, it can better restore the mechanical properties of tooth tissue.



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Application

Application in oral implantology

► Abutment

At present, the materials used in abutments mainly include titanium and zirconium. Titanium and zirconium abutments will directly transfer the maximum masticatory force to the implant and collar bone, which is not conducive to osseointegration. PEEK dental material is white in color and has a low elastic modulus, which can cushion the chewing force to a certain extent and make up for the deficiency of titanium and zirconium abutments.

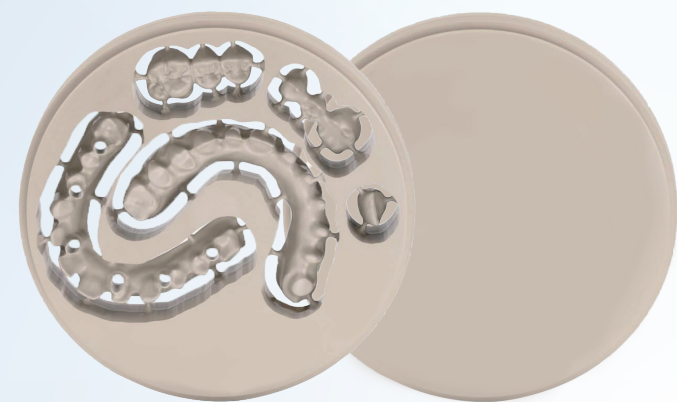


► Crown

PEEK is light in weight and has more advantages in repairing dentition with a large number of missing teeth. Using PEEK crowns with a smaller elastic modulus to replace metal crowns and all-ceramic crowns will play a certain buffering role.

► Bridge

PEEK dental bridge has good non-sensitization and can prevent allergic reactions of patients.



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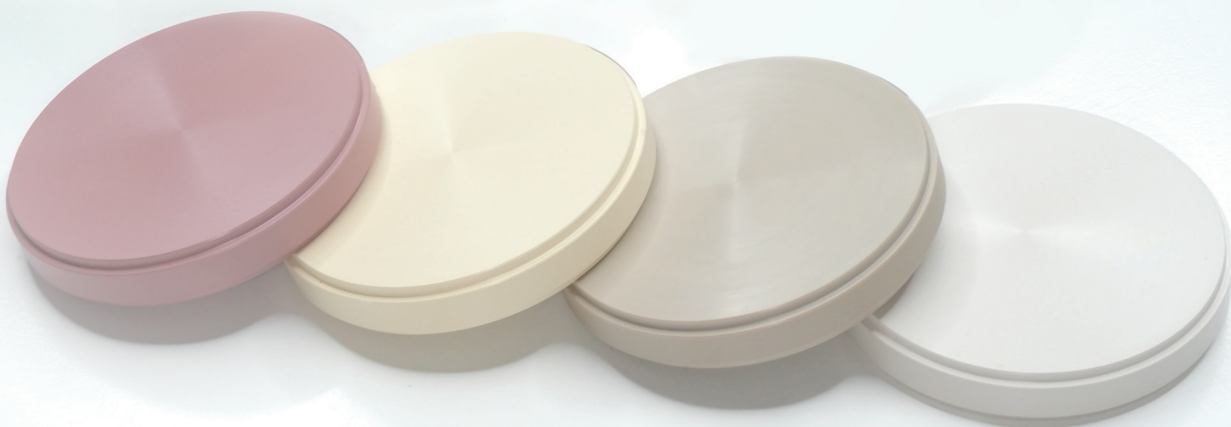
Parameter

Component parameters

Color	Density (g/cm ³)	Flexure Strength (Mpa)	Flexural Modulus (Gpa)	Impact Strength (KJ/m ²)
Natural	1.32	163	4	199
White	1.51	210	5.3	146
Yellow	1.51	205	5	148
Pink	1.35	196	4.4	153

Specifications

Color	Wide	Thickness	Indications
Natural	98/95 92*75mm	10/12/14/16/18 20/22/25mm	Crown, Bridge
White			Crown, Bridge, Implant fixture, Abutment
Yellow			Crown, Bridge
Pink			Denture base



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