



Graphene reinforced

biopolymer disc for CAD/CAM milling

For definitive prostheses













Graphenano Dental is focusing on nanotechnology for the dental sector by creating graphene-reinforced biopolymers for the manufacture of dental prostheses using CAD/CAM milling technology.

The G-CAM disc based on polymethylmethacrylate doped with graphene is indicated for permanent dental structures, Class IIa. It is also available in different chromatic ranges that provide a natural esthetic.

Due to the incorporation of graphene into our polymers, we have been able to exponentially improve mechanical, physicochemical and biological properties.

G-CAM properties

- Suitable for definitive prosthesis.
- Mechanical properties similar to those of natural tooth.
- Excellent aesthetic properties.
- High elastic modulus and resistance to deformation.
- Colour stability.

Material properties

Elastic modulus (1):

Bending strength (1):

Water absorption (1):

Solubility (1):

3200 ± 7% MPa

140 ± 7% MPa

4 μg/mm³

0,5 μg/mm³

Compressive strength (1):

155 ± 5 MPa

Residual monomer (1):

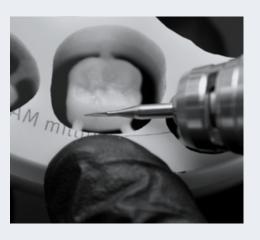
Surface hardness:

<0.004 %

88 ShoreD (2) 19.5 KHN (3)

(1) ISO 20795-1: 2013 | (2) ISO 48-4:2018 | (3) ASTM E384 (4) ISO 5833:2002

Economic advantages



- Higher number of pieces can be milled of pieces per disc.
- Faster and more efficient work processes, thanks to the CAD-CAM SYSTEM.
- Reduction of working times.
- G-CAM does not require thermal processes.
- Application of different characterization techniques.
- Increased profitability.

Material comparison

	G-CAM	Zirconium
Pieces per disc	28/32	20/22
Working time per arch	3,5 hours	11 hours

After-sales service

Graphenano Dental has a technical support department which is in charge of providing complete customer service:



- Trainings
- Treatment advice
- Design review
- Consultation management