



Processing information for

VarseoSmile Crown plus

RESTORATIONS PRINTED BY BEGO

The world's first hybrid material for
3D printing of permanent restorations

Partners in progress



VarseoSmile Crown ^{plus}

The world's first hybrid material for 3D printing of permanent restorations

VarseoSmile Crown ^{plus} is the world's first approved, tooth-colored, ceramic-filled hybrid material that was specially developed for the 3D printing of permanent single crowns, inlays, onlays and veneers. The material fulfills all requirements for a class IIa medical device in accordance with the EC directive "Medical Devices" 93/42/ EEC and is available in seven VITA* classical shades.

Printed restorations made from VarseoSmile Crown ^{plus} are stand out, among other things, with their excellent aesthetics, low tendency to age and discoloration and a high wearing comfort for the patient. A high adhesive bond of the material with luting composites prevents the decementation and thus the possible formation of secondary caries.

The following instructions regarding the process are for restorations from VarseoSmile Crown ^{plus}, printed by BEGO and finalized in a laboratory.

Indication

VarseoSmile Crown ^{plus} is a tooth-colored, ceramic-filled hybrid-material made for the production of permanent single crowns, inlays, onlays and veneers.

Contraindications

In case of known allergies to one or more ingredients of VarseoSmile Crown ^{plus}, the application is contraindicated. In cases of doubt, the allergy should be clarified and ruled out based on a specific test prior to the application of this product. VarseoSmile Crown ^{plus} should not be used for purposes other than the production of permanent single crowns, inlays, onlays and veneers. Any deviation from these processing information can have negative effects on the chemical and physical quality of plastics made from VarseoSmile Crown ^{plus}.

Minimum wall thicknesses single crowns, inlays, onlays and veneers

Minimum wall thicknesses anterior teeth	1.0 mm
Minimum wall thicknesses posterior teeth	1.0 mm
Minimal wall thickness, cervical	1.0 mm

Finishing process

The printed objects have to be checked for fit and finished completely. Finishing and contouring can be performed with carbide cutters or diamond grinding stones.

Optional step: individualization

Individualization of the objects is possible with composite stains and is the responsibility of the user. This specific adjustment may affect the colour result. The manufacturer's instructions are to be followed. If the restoration is not individualized, it has to be polished.

Polishing in the laboratory

Polish the surface of the objects with pumice stone and polishing compound. Avoid overheating of the resin during polishing.

Storage and transportation of printed objects

The completely cured print objects must be stored at room temperature and protected from sources of bright light.

Cleaning of the restorations

Fully cured objects made from VarseoSmile Crown ^{plus} can be easily cleaned and disinfected. Steam cleaning (e. g., with Triton SLA) or disinfection in the immersion bath (e. g. ethanol 96 % or MD 520* impression disinfectant, Dürr Dental Co.) is possible. Follow manufacturer's instructions.

Note for practitioners

Restorations can undergo high-gloss polishing with composite polishers commonly used in dental practice. The finished permanent restorations can be attached using self-adhesive cements (e. g. RelyX Unicem*, 3M Espe) or composite cement with a primer (e. g. Variolink Esthetic DC* and Monobond Plus*, Ivoclar Vivadent). Observe the instructions for use of the luting agent.

Disposal

The cured, separated material (base plate, support structure) can no longer be used. Cured material can be disposed of as domestic waste.



Chemical composition

Esterification products of 4.4'-isopropylidiphenol, ethoxylated and 2-methylprop-2enoic acid. Silanized dental glass, methyl benzoylformate, diphenyl (2,4,6-trimethylbenzoyl) phosphine oxide.
Total content of inorganic fillers (particle size 0.7 µm) is 30–50 % by mass.

Material Data

VITA* classical Shades	A1, A2, A3, B1, B2, C2, D3
Flexural strength	≥ 116 MPa
Layer thickness when printed	50 µm
Flexural modulus	4.090 MPa
Water solubility	0.23 µg/mm ³
Water sorption	3.6 µg/mm ³

Notes

Restorations made from VarseoSmile Crownplus are custom products in accordance with directive 93/42/EWG.
VarseoSmile Crown^{plus} restorations made at BEGO satisfy all the requirements for a Class IIa** medical device.

Safety information

The processing of VarseoSmile Crown^{plus} produces dusts, which can irritate the eyes, skin and airways. For this reason, please always ensure that the extraction systems at your workstation are in perfect working order.

Disposal

VarseoSmile Crown^{plus} restorations are not water soluble, are inactive, pose no risk for the groundwater and can thus be disposed of as normal household waste.

Adverse effects

VarseoSmile Crown^{plus} has no known adverse effects. However, individual reactions (e.g. allergies or incompatibilities) to components of VarseoSmile Crown^{plus} in very rare cases cannot be excluded. In such cases, VarseoSmile Crown^{plus} restorations should no longer be used.

Warranty

Our recommendations for use, whether given verbally, in writing, or by practical instruction, are based upon our own experience and trials and can therefore only be regarded as guidelines. Our products are subject to continuous development. We thus reserve the right to make modifications in design, appearance and materials without notice.

Identification

Manufacturer



Use

Only to be used by dental staff

Rx only

* This symbol is a commercial designation/registered trademark of a company which is not part of the BEGO company group.

** Class IIa medical device in accordance with directive 93/42/EWG.



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