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VarseoSmile TEMP

GEBRAUCHSANWEISUNG
INSTRUCTIONS FOR USE
INSTRUCTIONS D'UTILISATION
INSTRUCCIONES DE USO
ISTRUZIONI PER L'USO
INSTRUÇÕES DE UTILIZAÇÃO
ИНСТРУКЦИЯ ПО ПРИМЕНЕНИЮ

Partners in Progress



VarseoSmile Temp

Resin for 3D printing of temporary crown and bridge restorations, inlays, onlays and veneers. VarseoSmile Temp has been designed for use in the Varseo printers from BEGO Bremer Goldschlägerei Wilhelm-Herbst GmbH & Co KG.

1. Intended use/Indication

VarseoSmile Temp is a light-curing, free-flowing plastic based on methacrylic acid esters for the production of temporary crowns and bridges, inlays, onlays and veneers using 405-nm DLP printers.

2. Contraindications

Known allergy to one or more ingredients. 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 Temp should not be used for purposes other than temporary crown and bridge work. Any deviation from these instructions for use can have negative effects on the chemical and physical quality of plastics made from VarseoSmile Temp 3D resin.

3. Safety instructions

VarseoSmile Temp is produced and tested according to the most stringent quality standards. In order to ensure optimum further processing, please read the information contained in the instructions for use carefully. The improper use of VarseoSmile Temp and failure to follow information can have a detrimental effect on the quality of plastic produced from VarseoSmile Temp 3D resin. Nitrile gloves, safety goggles and a coat must be worn as a means of protection when handling the resin and the plastic that has not been post-cured. Conventional medical gloves do not offer any lasting protection against the sensitising effect of methacrylates. If the product comes into contact with the glove, take the glove off and discard it, wash your hands immediately with water and soap and put on a new glove. Consult a physician in the event of an allergic reaction.

The safety and care instructions set down in the VarseoSmile Temp instructions for use and safety data sheet shall apply to the handling of liquid resin and printed objects that have not been post-cured (objects in the “green condition”). A dust mask must be worn too due to potential dust formation while the printed objects are being processed.

It is prohibited to use plastic parts made of VarseoSmile Temp as auxiliary equipment for food and drinks applications.



4. Side effects and precautions

Precautions/Protection

It is essential that protective clothing be worn when handling VarseoSmile Temp. Safety goggles and nitrile gloves must be used. Further information on handling the product can be found in the safety data sheet and also downloaded from the BEGO Download Centre at www.bego.com. However, we cannot completely rule out the possibility of personal reactions to individual components in isolated cases. In such cases, the respective user should discontinue use of VarseoSmile Temp. If intolerances or allergic reactions occur when it comes into contact with the patient, discontinue use of the material.



WARNING

Contains:

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

Information on hazards as per MSDS

- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye irritation.
- May cause respiratory irritation.
- May cause long harmful effects to aquatic life.

Safety instructions as per MSDS

- Avoid breathing mist/vapours/spray.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection/face protection.
- Call a POISON CENTER/doctor if you feel unwell.
- If skin irritation or rash occurs: Get medical advice/attention.
- If eye irritation persists: Get medical advice/attention.
- Dispose of contents/container as per local and national regulations.

5. General information on handling

Delivery

VarseoSmile Temp is supplied in the colours A2 Dentin, A3 Dentin, C2 Dentin, according to the VITA* classical shade system, in lightproof and sealed bottles.

Filling quantity:

- REF 41022 = 500 g, A2 Dentin
- REF 41102 = 250 g, A2 Dentin
- REF 41023 = 500 g, A3 Dentin
- REF 41103 = 250 g, A3 Dentin
- REF 41024 = 500 g, C2 Dentin
- REF 41104 = 250 g, C2 Dentin

Please check the following points on receipt of the goods:

- Integrity of the bottle/pack
- Quantity
- Shipping documents and designation

Storage

VarseoSmile Temp must be stored in the original sealed bottle, or in the cartridge at room temperature (approx. 22 °C) in a dark, dry place. It must be ensured that the temperature does not drop below +4 °C and does not exceed +28 °C! The minimum shelf life date printed on the product must be observed. Perfect processing cannot be guaranteed if materials which have exceeded their minimum shelf life date are used.

6. Processing

VarseoSmile Temp is one of the system components in the BEGO Varseo 3D print system and has been optimised for use in the Varseo 3D printer.

The printing settings can be found in the instructions for use for the equipment.

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

Note:

- Max. construction length for bridges 7 units.
- Pontic max. one molar width!
- Observe minimal wall thicknesses for crowns and connectors cross-sectional areas for bridges:

Crowns, inlays, onlays and veneers	
Minimum wall thicknesses anterior teeth	1.0 mm
Minimum wall thicknesses posterior teeth	1.0 mm

Bridges		
Anterior teeth area	Minimum wall thicknesses crown	1.0 mm
	Minimum cross sectional area of the connector	12 mm ²
Posterior teeth area	Minimum wall thicknesses crown	1.5 mm
	Minimum cross sectional area of the connector	16 mm ²

VarseoSmile Temp's ideal working temperature is in the temperature range between 18°C and 28°C. **Before the first filling of VarseoSmile Temp into the cartridge, the material has to be shaken well!**

When decanting, make sure that the printing resin is exposed to daylight for as short a period of time as possible.

For further processing – selecting the resin, setting up the print job – as part of the printing process, follow the Varseo printer instructions for use.

Before starting each printing process, VarseoSmile Temp does not need to be mixed, even after long periods, up to a month, of non-use, because solids (fillers) did not settle. Before each print, check for air bubbles between build platform and the bottom of the cartridge. Air bubbles can negatively affect the print result.

When checking the anti-stick foil after each printing, blank cards from BEGO (REF 19551) or a silicone dough scraper can be used. Avoid sharp objects like a metal spatula, so as not to damage the foil!

Subsequent processing

On completion of printing, the print objects are released from the build platform using the spatula supplied. The print object should be cleaned in two steps with ethanol (96 %) using an ultrasonic bath.

Note: Never fill ethanol directly into the ultrasonic bath; place it in the recommended container (REF 19621) in the ultrasonic bath filled with water. Use an explosion-proof ultrasonic bath.

1. Clean the print object for **3 min** in a reusable ethanol solution (96 %) using an **unheated** ultrasonic bath.
2. The precleaned object must be cleaned thoroughly for **2 min** using a fresh ethanol (96 %) solution with the aid of an **unheated** ultrasonic bath. The print object is then removed from the ethanol bath and sprayed with additional ethanol (96 %) in order to fully rinse off any remaining resin residue.

Tip: Resin residues can also be removed using a brush soaked in ethanol (96 %).

The entire cleaning process should not take longer than 5 minutes as this could otherwise have a detrimental effect on the printed objects (swelling of the object with ethanol). After cleaning, the print object is dried using compressed air under an extraction unit. If there is liquid resin still adhering to the surface of the object, this can be completely removed by spraying again with ethanol (96 %) and re-drying.

Recommended steps for finishing and post-curing process:

1. Remove support structures. They can be removed using either a cutting wheel or side cutters.
2. Sandblast the surface of the objects carefully with Perlablast micro (REF 46092/54302) and at a maximum blasting pressure of 1.5 bar.
3. Check for fit and finish the objects completely. Finishing and contouring can be performed with carbide cutters or diamond grinding stones.
4. Post-curing of objects with BEGO Otofash or HiLite Power* without model (see table below), followed by cooling time.
5. Polish the surface of the objects with pumice stone and polishing compound. Avoid overheating of the resin during polishing. Optimal surface quality is achieved by polishing after post-curing.

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The final properties of the print object depend on the post-curing process. These are achieved by light polymerization with **the BEGO Otofash (two xenon stroboscopic lamps, flash frequency 10 Hz, light spectrum 300–700 nm) or with the HiLite Power*, Fa. Heraeus Kulzer (a xenon stroboscope lamp, flash frequency 20 Hz, light spectrum 390–540 nm).**

VarseoSmile Temp			
Post-curing device	BEGO Otofash (with protective gas)	HiLite Power*	Comments
Flash	2 x 1,500	–	Turn object between the exposure cycles
Time [seconds]	–	2 x 90	

Note: When employing the BEGO Otofash, use the protective gas function. This results in a further reduction of the already low remaining monomer content. To do so, set the protective gas function to switch position 1. Details can be found in the instruction manual for the post-curing device.

Note: The times given only apply to regularly maintained equipment that guarantees a corresponding light intensity.

7. Storage and transportation of printed objects

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

8. Cleaning in the dental laboratory and dental practice

Fully cured crowns and bridges made from VarseoSmile Temp can be easily cleaned and disinfected. Steam cleaning (e. g., with Triton SLA) is possible. Disinfection in the immersion bath (e. g. ethanol 96 % or MD 520* impression disinfectant, Dürer Dental Co.) is also possible. Follow manufacturer's instructions.

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9. Note for practitioners

The temporary restoration can undergo high-gloss polishing with composite polishers commonly used in dental practice. The finished restoration can be attached using conventional temporary cements (e. g. Temp Bond NE*, Kerr Co.). If the subsequent definitive restoration is to be attached using methacrylate-based composite cement, the use of eugenol-free temporary cements is recommended. Observe the instructions for use of the luting agent.

10. Disposal

The cured, separated material (base plate, support structure) can no longer be used. Cured material can be disposed of as domestic waste. Unused resin or ethanol used for cleaning with resin residues must be disposed of via the local waste disposal authority or a hazardous waste collection point stating the safety data sheet.

11. Material properties and scope of delivery








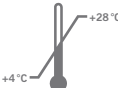


Physical data			
Colour*,**	A2 Dentin, A3 Dentin, C2 Dentin	Flexural strength**	≥ 80 MPa
Density*	approx. 1.4–1.5 g/cm ³	Layer thickness when printing	50 µm
Viscosity*	2,500–6,000 mPa*s	Wavelength 3D-printer	405 nm

* applies to liquid resin ** applies to cured plastic

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Delivery form				
	Contents	Presentation	Qty	REF
VarseoSmile Temp, A2 Dentin	500 g	bottle	1	41022
VarseoSmile Temp, A2 Dentin	250 g	bottle	1	41102
VarseoSmile Temp, A3 Dentin	500 g	bottle	1	41023
VarseoSmile Temp, A3 Dentin	250 g	bottle	1	41103
VarseoSmile Temp, C2 Dentin	500 g	bottle	1	41024
VarseoSmile Temp, C2 Dentin	250 g	bottle	1	41104

12. Label symbols

- | | | | |
|--|-------------------------|---|------------------------------|
|  | Manufacturer |  | Consult instructions for use |
|  | Batch code |  | Use by date |
|  | Catalogue number |  | Caution |
|  | Keep away from sunlight |  | Temperatur limit |
|  | CE mark |  | For professional use only |

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