

The BEGO
VARSEO® RESINS
for Dental 3D Printing

Partners in Progress



3D PRINTING SOLUTIONS TAILORED FOR DENTAL 3D PRINTING

The high dental technology requirements regarding precision, safety and reproducibility of 3D printing solutions differ considerably from those of other application fields.

BEGO is a long-established family company with more than 130 years of dental expertise, a pioneer of CAD/CAM technology with more than 20 years of experience in the field of 3D printing, and a specialist in all dental fabrication techniques. The BEGO Varseo system offers you:

- a system that has been specially developed for and with dental experts
- the means to achieve fast, simple and cost-efficient fabrication of a wide range of restorations made from resins and ceramic filled hybrids – in your own laboratory and with complete flexibility and unrivalled precision
- validated processes from scanning to finishing.



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Interested in 3D Printing Training Courses?

In the BEGO TRAINING CENTER in Bremen we teach dental technology at the highest level. On the basis of our own concept, we have developed a sophisticated programme for seminars and practical courses that help interested dental technicians to become even more successful.

Interested technicians from all over the world are encouraged to contact their BEGO Sales Partner or to visit our website at www.bego.com/training-center.



BEGO
Course Overview



VarseoSmile Crown^{plus}

The ceramic-filled hybrid material for 3D printing permanent restorations

Versatile

- VarseoSmile Crown^{plus} can be used for 3D printing definitive restorations such as single crowns, partial crowns, crowns on abutments, inlays, onlays, tabletops and veneers in the anterior and posterior region including occlusal surfaces.
- Antagonist-friendly material with mechanical buffer effect, ideal for implant-supported crowns
- Thanks to the full integration into the digital workflow and the low material costs, a same-day treatment option with an excellent price-performance ratio is made possible

Aesthetic

- VarseoSmile Crown^{plus} is available in seven shades according to the VITA^{*} classical shade system and one Bleach shade: A1 Dentin/A2 Dentin/A3 Dentin/B1 Dentin/B3 Dentin/C2 Dentin/D3 Dentin/BL Dentin
- Excellent esthetics due to balanced ratio of opacity and translucency
- Fluorescence of the printed objects resembles that of the natural tooth

Simple

- Clear visibility of restorations made of VarseoSmile Crown^{plus} on radiographs
- Minimized resin sedimentation for easy handling, no mixing or shaking necessary with regular use
- Easy to grind and polish with standard tools

Safe

- Extensive scientific studies by renowned universities and institutes confirm the excellent features of the restorations made of VarseoSmile Crown^{plus}
- Certified biocompatibility: Not cytotoxic, not irritating, not sensitizing, not pyrogenic, not genotoxic or mutagenic
- Meets the requirements for a Class IIa product according to MDR and is FDA 510(k) cleared as a Class II medical device^{**}

Product details

Color	A1, A2, A3, B1, B3, C2, D3, BL
Density	approx. 1.4–1.5 g/cm ³
Viscosity	2,500–6,000 mPa*s
Flexural strength	116–150 MPa ^{**}
Flexural modulus	4,090 MPa
Hardness	≥90 Shore D
Water solubility	< 1 µg/mm ³
Water sorption	< 12 µg/mm ³

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

** Medical device as defined by section 201(h) of the Food, Drug & Cosmetic Act

Images and illustrations are examples. Colors, symbols, designs, and information on the depicted labels and/or packaging may differ from reality.

Article details

Availability	Contents***	REF
VarseoSmile Crown ^{plus} A1	500 g bottle	41107
VarseoSmile Crown ^{plus} A2	500 g bottle	41108
VarseoSmile Crown ^{plus} A3	500 g bottle	41109
VarseoSmile Crown ^{plus} B1	500 g bottle	41110
VarseoSmile Crown ^{plus} B3	500 g bottle	41111
VarseoSmile Crown ^{plus} C2	500 g bottle	41112
VarseoSmile Crown ^{plus} D3	500 g bottle	41113
VarseoSmile Crown ^{plus} BL	500 g bottle	41114
VarseoSmile Crown ^{plus} A1	250 g bottle	41117
VarseoSmile Crown ^{plus} A2	250 g bottle	41118
VarseoSmile Crown ^{plus} A3	250 g bottle	41119
VarseoSmile Crown ^{plus} B1	250 g bottle	41120
VarseoSmile Crown ^{plus} B3	250 g bottle	41121
VarseoSmile Crown ^{plus} C2	250 g bottle	41122
VarseoSmile Crown ^{plus} D3	250 g bottle	41123
VarseoSmile Crown ^{plus} BL	250 g bottle	41124

Scientific studies:



Validated processing with numerous 3D printers and post-exposure units



Free 3D Printed VarseoSmile Crown^{plus} Sample:



Smart Veneering with VarseoSmile Crown^{plus}



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** See study "Effects of additional UV light curing processes" under www.bego.com

*** The use of the 250 g bottles is recommended for the Varseo XS 3D printer.

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VarseoSmile Teeth

The ceramic-filled 3D printing material for esthetic and durable denture teeth

Consistent

- Strong bond with 3D-printed denture bases and cold polymer denture bases
- The ceramic filling ensures high abrasion resistance of the denture teeth printed from VarseoSmile Teeth
- Physically stabilized resin – no need to mix the resin in the resin vat even after prolonged non-use

Product details

Color	A1, A2, A3, B1, C2, BL
Max. dimensional deviation by bonding	< 0,7%
Density	ca. 1,4–1,5 g/cm ³
Flexural strength	≥ 100 MPa

Aesthetic

- Esthetic denture teeth due to the very good ratio of opacity and translucency as well as the almost natural fluorescence
- For an even more natural look, the printed denture teeth can be characterized with veneering and staining techniques
- Available in 5 VITA** shades and in BEGO Bleach shade

Validated processing with numerous 3D printers and post-exposure units



Efficient

- Cost-effective and efficient fabrication of full and partial dentures in the digital workflow with VarseoSmile Teeth with reproducible results at any time
- Easy to grind and polish with standard tools
- Less than 0.7% shape deviation when bonding to the denture base guarantee fluid workflows and high-quality work results

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Article details

Availability	Contents	REF
VarseoSmile Teeth A1	1 kg bottle	41144
VarseoSmile Teeth A2	1 kg bottle	41145
VarseoSmile Teeth A3	1 kg bottle	41146
VarseoSmile Teeth B1	1 kg bottle	41147
VarseoSmile Teeth C2	1 kg bottle	41148
VarseoSmile Teeth BL	1 kg bottle	41149
VarseoSmile Teeth A1	250 g bottle	41154
VarseoSmile Teeth A2	250 g bottle	41155
VarseoSmile Teeth A3	250 g bottle	41156
VarseoSmile Teeth B1	250 g bottle	41157
VarseoSmile Teeth C2	250 g bottle	41158
VarseoSmile Teeth BL	250 g bottle	41159





VarseoSmile Temp

The tooth-colored resin for 3D printing of temporary crown and bridge restorations, inlays, onlays, and veneers

Advantages for the laboratory

- Specially for the resin developed printing and processing parameters ensure an accurate fit and smooth production workflows with reproducible results at any time
- Easy finishing due to the smooth surfaces of the printed objects
- Wide range of indications up to 7-unit bridges with a maximum of one pontic width
- Objects that have already been printed can be supplemented and repaired while maintaining original stability with VarseoSmile Temp – or will simply be reprinted due to low material costs
- Extremely short fabrication times and low material consumption equate to cost-efficient production in the laboratory
- Three shades according to the proven VITA* classical shades: A2, A3, C2
- Meets the requirements for a Class IIa product according to MDR and is FDA 510(k) cleared as a Class II medical device**

Product details

Color	A2, A3, C2, BL
Density	approx. 1.4 – 1.5 g/cm ³
Viscosity	2,500–6,000 mPa·s
Flexural strength	≥ 100 MPa

Validated processing with numerous 3D printers and post-exposure units



Advantages for the patient

- The finished restoration can be attached using conventional temporary cements
- High biocompatibility – not cytotoxic, not genotoxic, not toxic, non-irritating, and non-sensitizing
- Esthetic temporaries with up to 12 months wear time

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Article details

Availability	Contents*	REF
VarseoSmile Temp A2	500 g bottle	41022
VarseoSmile Temp A3	500 g bottle	41023
VarseoSmile Temp C2	500 g bottle	41024
VarseoSmile Temp BL	500 g bottle	41026
VarseoSmile Temp A2	250 g bottle	41102
VarseoSmile Temp, A3	250 g bottle	41103
VarseoSmile Temp, C2	250 g bottle	41104
VarseoSmile Temp BL	250 g bottle	41106



* The use of the 250 g bottles is recommended for the Varseo XS 3D printer.
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VarseoWax CAD/Cast

The resin for the 3D printing of burnout objects

- Can be burned out without leaving any residue – provides optimal conditions for pore-free, smooth and precise partial dentures
- Specially for the resin developed printing and processing parameters ensure smooth production sequences with reproducible results at any time
- Excellent dimensional stability of the printed objects enables deformation-free investment and thus an excellent accuracy of fit of the casted objects
- Smart workflow – digital design enables planning of cast object and 3D-printed veneering in one step

Investing with system:

Specially developed for use with VarseoWax CAD/Cast shock-heat investment material VarseoVest C&B and VarseoVest P^{plus}

- Easy application
- Easy investing even on slender object details
- Moulds do not crack or tear

Validated processing with numerous 3D printers and post-exposure units



VarseoVest C&B shock-heat precision investment material, especially for casting 3D printed crown and bridge frameworks



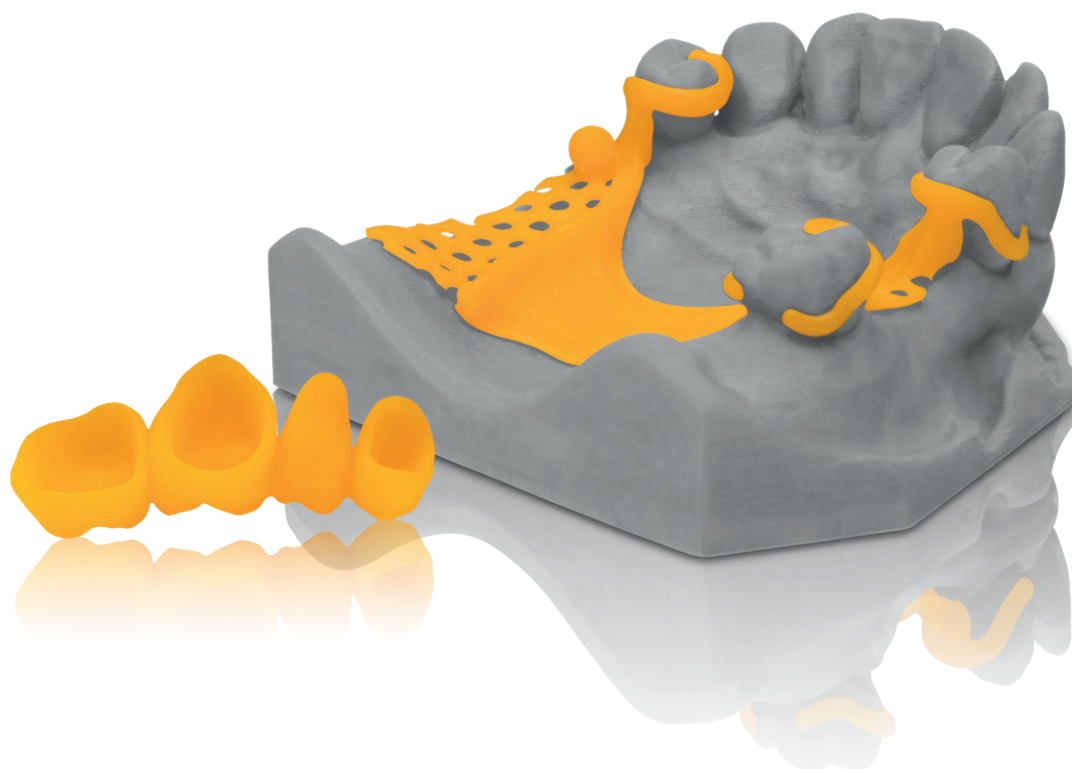
VarseoVest P^{plus} shock-heat precision investment material, especially for casting 3D printed partial denture frames

Product details

Color	yellow
Viscosity	700 – 2,000 mPa·s
Density at 22 °C	approx. 1.10 g/cm ³
Flexural strength	> 50 MPa
Residual ash content	< 0.1 % at 700 °C

Availability

	Contents*	REF
VarseoWax CAD/Cast	250 g bottle	41137
VarseoWax CAD/Cast	1 kg bottle	41136





VarseoWax Model

The resin for 3D printing of dental models

- Resin for solid or hollow 3D printing of full and partial dental models as well as models with removable dies
- Suitable for duplicating with silicone or gel and for fabricating splints, aligners, etc. using the deep-drawing technique
- Specially for the resin developed printing and processing parameters ensure smooth production sequences with reproducible results at any time
- The dimensional stability and the smooth and pore-free surfaces of the printed models are the ideal basis for the fabrication of high-precision restorations
- Can be insulated against adhesive wax, is resistant to moisture in order to facilitate problem-free cleaning and accordingly, its handling during processing is comparable to that of a conventional plaster model
- Optimal visibility of all model contours and preparation margins due to the opaque gray color of the models
- Suitable for processing in DLP 3D printers with a wavelength from 385 nm to 405 nm
- Easy and error-free to process – high physical stability minimizes sedimentation during storage and facilitates mixing

Product details

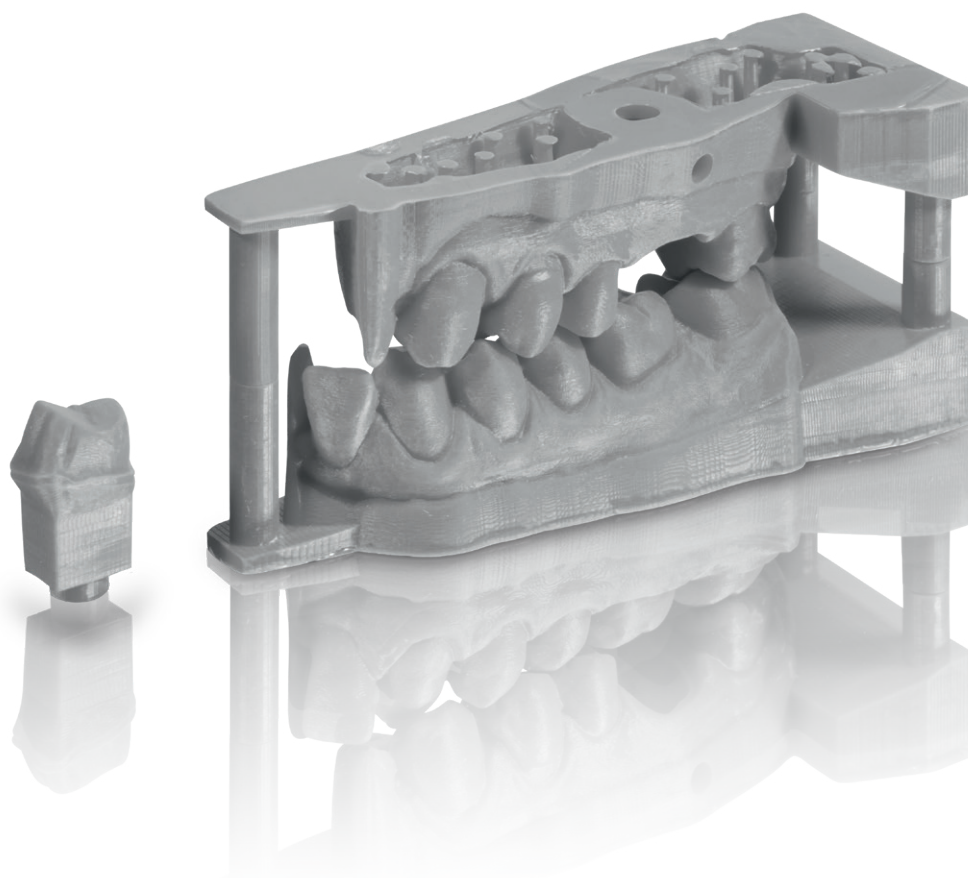
Color	gray
Modulus of elasticity	≥ 1,500 MPa
Density	approx. 1.12 g/cm ³
Viscosity	1,000 – 2,100 mPa·s
Flexural strength	≥ 50 MPa
Hardness	≥ 85 Shore D

Validated processing with numerous 3D printers and post-exposure units



Article details

Availability	Contents*	REF
VarseoWax Model	250 g bottle	41141
VarseoWax Model	1 kg bottle	41140



* The use of the 250 g bottles is recommended for the Varseo XS 3D printer.
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CUSTOMER SERVICE CENTER

Great service is done by great people, and that's what BEGO is all about. More than 40 specialists at the Customer Service Center at our headquarters in Bremen, Germany, will be happy to take care of your needs. From product information, order acceptance and application advice to help in case of technical challenges, we are glad to be at your service!

Orders/Inquiries

Implantology:

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✉ order.imp@bego.com

Lab Material & Equipment:

☎ +49 421 2028-220
✉ order.lab@bego.com

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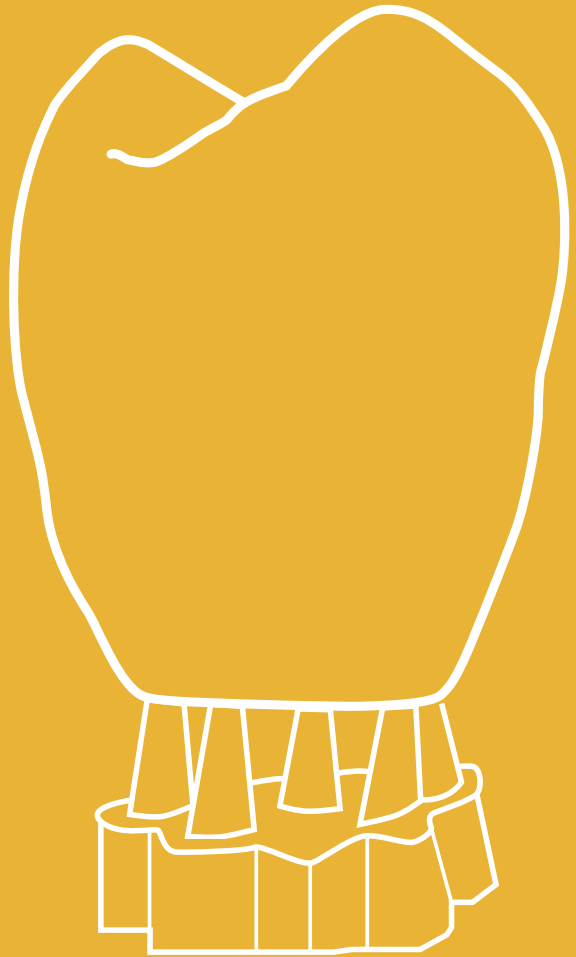
3D Printing & Lab Material:

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Here, you find more information
about our services:
<https://www.bego.com/service/>





Compatibility Overview
3D Printers and
BEGO Varseo Materials



BEGO
Course Overview



BEGO Tutorials



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