

EN | Solutions for the dental laboratory





# Catalogue **2019**





Progress, constantly. Creating value, to make the quality of the products accessible to the world. With creativity, and especially with the ability to transform every challenge into a development opportunity. To dynamically seize the market trends and understand the needs of partners, clients and customers. To make our solutions accessible worldwide. All this is the basis of Zhermack's growth, and since its foundation, over 35 years ago, the company has never ceased to develop and grow.

The clarity of the dream continues to drive Zhermack along this road, to "make you feel confident in everyday life". This is Zhermack's goal and philosophy of life. And it is a dream that is realised every day. Because everything aims at transmitting confidence. The way is charted with the awareness that Zhermack must contribute to improve oral health throughout the world, now and for future generations.

The contribution of Zhermack to people's oral health stems from the value that is given to the quality of its products. A quality that is born from scientific research and from the commitment to continuous education, to reach and always set new goals that contribute to improve the lives of people all over the world.





«Zhermack is a company that is committed with constancy to creating value, to make the quality of its products accessible worldwide. Zhermack's success resides in its ability to be creative, to transform every challenge into a growth opportunity, and to be dynamic, in order to seize the market trends and understand the needs of partners, clients and end customers».

> Paolo Ambrosini General Manager

## Our solutions.

Specific products and solutions for the dental laboratory, conceived exploiting the skills acquired with materials for the dental practice. Starting from development and production of duplication silicones and masks, Zhermack has extended its offer with quality products such as dental stones, resins and investments to satisfy the needs of the numerous laboratory processes involved in the fabrication of fixed and removable prostheses. A system to accompany lab technicians in their daily work.

## We produce measurable results.

Zhermack directly manages all the working stages - from formulation to packaging, from the production of raw materials to the mixing - to produce all its solutions. Validated and controlled processes are the guarantee with which Zhermack is able to offer products that are constant in their characteristics, as well as certified in guality.

This, together with the technological and process integration adopted over time, is what makes Zhermack one of the major producers in the field of dental products.

## Quality, certified. Year after year.

Zhermack meets the needs of its customers, maintaining and improving its Quality Management System day after day. Zhermack started its certification process in 1993.

Today the global regulatory framework is very complex and, to simplify access to the global market for its products, Zhermack has taken a big step in 2018: EN ISO 13485:2016 and MDSAP (Medical Device Single Audit Program) certifications.





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NOTE: The images and texts related to the technical data of the individual products and accessories may be changed during the period of validity of the catalogue. The images are only representative of the showed products. Not all products are sold in every country. For further information on product availability, please contact your local representative.

## Solutions for the dental laboratory





#### Hygiene

Impressions arriving from the dental practice are often contaminated with saliva and blood. Correct disinfection is vital to protect the health of laboratory technicians. Zhermack **disinfectants** with a **broad spectrum of action** are **enhanced with surfactants to improve the flow of the stone during pouring**.

- Zeta 7 Spray (with surfactants)
- Zeta 7 Solution (without surfactants)

#### Model preparation

An accurate model is the basis of every well-made prosthesis.

Zhermack offers a **complete system** of impression materials, materials for models and equipment, all developed to be used as a system to ensure maximum precision. It also offers a series of scannable products to facilitate the lab technician with **CAD/CAM technology**.

- Platinum
- Zetalabor and Titanium
- Elite Double
- Gingifast
- Elite Dental Stones

#### Prosthesis preparation

The prosthodontic market requires ever more speed and precision. Thanks to more than 35 years' experience, Zhermack has developed a wide offer to **optimise time in the laboratory**, without compromising on quality.

- Villacryl
- Elite LC Tray
- Acrytemp
- Elite Vest



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## **CAD/CAM solutions**

The CAD/CAM solutions developed by Zhermack combine traditional techniques (impression taking, model preparation, prosthesis) with the most innovative digital techniques. Saving time in data acquisition, simplifying and improving the quality of CAD/CAM processes.

The Zhermack offer includes a wide range of scannable silicones and stones readable without using reflective sprays.

BITE REGISTRATION Platinum 75 CAD Occlufast CAD	
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A-Silicone

**Platinum 75 CAD** is an addition silicone recommended for all CAD/CAM users for making scannable bite regulation keys in the articulator.

#### Characteristics

- Accurate reproduction of details
- 75 Shore A hardness
- Mixing ratio 1:1



Platinum 75 CAD

#### Advantages

- Quicker working time to improve efficiency in the laboratory
- Easy to finish, including with bur
- Scannable without using reflective sprays



Platinum 75 CAD scan



Mixing time (min:s)	Working time* (min:s)	Setting time* (min:s)	Detail reproduction (µm)	Elastic recovery	Strain in compression	Linear dimensional change (after 24 h)	Hardness (Shore A after 24 h)	Heat resistance
0:30	1:00	7:00	20	> 99.5 %	< 1 %	0.05 %	75	200 °C

\*The times mentioned above are intended from the start of the mixing phase at 23 °C (73 °F).

#### Platinum 75 CAD - A-Silicone for bite registration





Developed for use in the dental practice, but also excellent for laboratory use, **Occlufast CAD** is an addition silicone for bite registration, scannable without using reflective sprays.

The short working time allows the laboratory work to be optimised.

#### Characteristics

- Accurate reproduction of details
- High hardness: 95 Shore A
- Mixing ratio 1:1
- Setting time 60 seconds\*



Occlufast CAD

#### Advantages

- Short setting time
- Scannable without using reflective sprays
- Easy to finish, including with a bur





Occlufast CAD scan

Mixing ratio Base: Catalyst	Working time** (min:s)	Setting time** (min:s)	Detail reproduction (µm)	Linear dimensional change (after 24 h)	Hardness (Shore A)
1:1	0:30	1:00	20	0.05 %	95

\*\*The times mentioned must be intended at 35 °C - 95 °F.

Occlufast (	CAD - A-Silicone for bite registration
Code	Packaging
C200800	2 x 50 ml cartridges (Base + Catalyst) + 12 green mixing tips



Type 4 stones

**Elite Master** and **Elite Rock** are type 4 stones to make scannable master models without using reflective sprays.

**Elite Master** is reinforced with resin particles, making the material easy to work and resistant to chipping.

**Elite Rock** is an extra hard stone with high compressive strength, recommended for making master models for fixed prostheses.

Elite Master is scannable in all colours, Elite Rock only in Silver Grey.

#### Characteristics

Elite Master:

- Scannable without using reflective sprays
- Formaldehyde free
- Resistant to chipping Elite Rock:
- · Also available in fast version to optimise working time
- Low expansion, even after 48 hours
- Accurate reproduction of details

#### Advantages

- Time savings in data acquisition with optical scanners
- Greater precision compared to use of reflective sprays
- Cleaner environment





Elite Master



Elite Master scan

Product	Water/powder ratio	Mixing time (manual) (min:s)	Mixing time (vacuum) (min:s)	Working time (min:s)	Setting time (VICAT) (min:s)	Removal time (min:s)	Setting expansion 2 h	Setting expansion 48 h	Compressive strength 1 h	Compressive strength 48 h
Elite Master	21 ml / 100 g	1:00	0:30	12:00	14:00	45:00	0.08 %	0.19 %	50 MPa (510 kg / cm²)	75 MPa (756 kg / cm²)
Elite Rock	20 ml / 100 g	1:00	0:30	12:00	14:00	45:00	0.08 %	0.19 %	52 MPa (530 kg / cm²)	81 MPa (826 kg / cm²)
Elite Rock Fast	20 ml / 100 g	1:00	0:30	5:00	9:00	25:00	0.08 %	0.19%	52 MPa (530 kg / cm²)	81 MPa (826 kg / cm²)

More details on page 22



**Gingifast CAD** is a scannable fluid addition silicone, suitable for reproducing gingival morphology on models.

The elastic version with high tear resistance is recommended in the presence of undercuts or very thin thicknesses. The rigid version is ideal for implant prosthesis applications.

Characteristic

- Two hardness versions: Elastic 40 Shore A, Rigid 70 Shore A
- Rapid working times
- Mixing ratio 1:1



Gingifast CAD Elastic and Rigid

#### **Advantages**

- Time savings in data acquisition with CAD/CAM
- Greater precision compared to use of reflective sprays
- Compatible with both direct and indirect techniques
- Reduction of waste, thanks to the smaller tips



Gingifast CAD Elastic scan

Product	Mixing ratio	Working time* (min:s)	Setting time* (min:s)	Hardness (Shore A)
Gingifast Elastic	1:1	2:00	10:00	40
Gingifats Rigid	1:1	2:00	10:00	70

\*The times mentioned above are intended from the start of the mixing phase at 23 °C (73 °F).

#### **Gingifast CAD - A-Silicones for gingival reproduction**







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## **Model preparation**

An accurate model is the basis of every well-made prosthesis. Possible errors during this phase have repercussions on subsequent phases and are extremely difficult to eliminate.

Sensitive to the needs of lab technicians, Zhermack has designed a system of laboratory and impression materials able to work in synergy to obtain accurate models.





## Model preparation Stone models

The choice of material to develop the model contributes to the success of the prosthesis. The types 3 and 4 stones in the Elite range are formulated, developed and produced in-house by Zhermack which controls the various phases of the production process to offer high quality constant standards.

Available in a wide range of colours and different packs, Zhermack stones can meet the main diverse needs of the laboratory.

They are compatible with the most commonly used impression materials present on the market (including polyethers and hydrocolloids) and are formulated to deliver the best performance when used in combination with Zhermack materials.

#### MASTER MODEL AND BASES

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#### **Dental stones classification**

The international regulation 6873:2013 classifies dental stones in different types, based on their linear setting expansion and compressive strength.

Higher type does not always mean higher quality for a stone. Type 5 stones, for example, are characterized by a high compressive strength but have also a high expansion, thus they are suitable for specific applications only. Type 3 and 4 stones are instead the best for the dental use, because characterized by high compressive strength and

low expansion that allow a higher dimensional stability over time and therefore precision in the reproduction of detail.

Туре		Linear setting %			Compressiv M	
	2	h	24	4 h	1	h
	min.	max.	min.	max.	min.	max.
1	0.00	0.15	-	-	4.0	8.0
2 (Class 1)*	0.00	0.05	-	-	9.0	-
2 (Class 2)**	0.06	0.30	-	-	9.0	-
3	0.00	0.20	-	-	20.0	-
4	0.00	0.15	0.00	0.18	35.0	-
5	0.16	0.30	-	-	35.0	-

\*dental plaster for mounting

\*\*dental plaster for models

#### Zhermack dental stones





#### A stone for every application

#### For fixed prostheses

#### Stone for bases | Elite Base

- Optimised to be used in combination with master model → same expansion (type 4)
- Easy to cast → fluid

#### Stone for master model | Elite Rock or Elite Master

- Accurate reproduction of details → low expansion
- Chamfering without splintering → resin particles
- Hard stone → compressive strength

#### Stone for antagonist | Elite Model

- Cheaper than master model → type 3
- Hard stone → compressive strength

#### Stone for articulator | Elite Arti

- Maintain correct occlusion → low expansion
- Simplifying positioning in the articulator → thixotropic
- Perfect fixing with antagonist → adhesion

#### For removable prostheses

#### Stone for articulator | Elite Arti

- Maintain correct occlusion → low expansion
- Simplify positioning in the articulator → thixotropic
- Perfect fixing with antagonist → adhesion

#### Stone for master model | Elite Stone

- To be used at high temperature → resistant to thermal shocks
- To be used with frameworks  $\rightarrow$  wear resistance







### Elite Master | Elite Rock | Elite Base | Elite Stone

Type 4 stones for master models and bases

Model preparation / Stone models

Type 4 stones have high compressive strength and low expansion, ideal for making master models. Each stone developed by Zhermack has specific technical characteristics for each individual application.

**Elite Master** is the stone for master models in fixed prosthesis applications with resin particles, for chamfering without splintering. **Elite Rock** is an extra hard stone for master models in fixed prosthesis applications.

**Elite Base** has excellent fluidity for preparation of bases, including without vibrator.

**Elite Stone** is a stone specifically conceived for master models in removable prostheses, resistant to thermal shock and abrasion from frameworks.

Thanks to its special formula optimised for reading with CAD/CAM systems, models made with Elite Master (in all colours) and Elite Rock (Silver Grey) are scannable without using reflective sprays.



Elite Master

#### Characteristics

- Low expansion, even after 48 hours
- Accurate reproduction of detail
- "Fast" version to save time (Elite Rock) Elite Master:
- Formaldehyde free
- Resistant to chipping



Elite Rock

#### **Advantages**

- Elite Master: chamfering without splintering, thanks to the high resistance given by the resin particles incorporated in the stone
- Thixotropic to simplify fabrication of the model
- Elite Base: high fluidity, even without vibration



Elite Base



 MASTER MODEL

 FIXED PROSTHESIS

 REMOVABLE PROSTHESIS

 MODEL
 Elite Rock
 Elite Rock
 Elite Stone

 Chipping resistance for optimal chamfering
 Improved comprises strenght and higher precision of model
 Elite Stone
 Elite Stone

 BASE
 Elite Base Optimal Fluidity
 Elite Base Thuidity
 Reduced abrasion and resistance to thermal shock

Elite Master Elite Rock Elite Rock Fast Elite Base Elite Stone Scannable All Silver Grey Silver Grey \_ Application Master model (fixed, dies) Master model (fixed) Master model (fixed) Bases for model Master model (removable) Desert Sand, Sandy Brown, Soft Grey Sandy Brown, Cream, White, Terracotta Red, Aqua Green, Pink, Color Sandy Brown, Cream Silver Grey Royal Blue, Grey Navy, Blue, Brown Type 4 4 4 4 4 Main feature Resin reinforced Extra hard Extra hard Optimal fluidity Thermal shock resistant Water / Powder 21 ml / 100 g 20 ml / 100 g 20 ml / 100 g 23 ml / 100 g 25 ml / 100 g Mixing time (m)\* 1:00 1:00 1:00 1:00 1:00 Mixing time (v)\*\* 0:30 0:30 0:30 0:30 0:30 12:00 5:00 8:00 Working time 12:00 5:00 Setting time\*\*\* 14:00 9:00 14:00 14:00 18:00 45:00 25:00 45:00 **Removal time** 45:00 45:00 Expansion after 2 h 0.08 % 0.08 % 0.08 % 0.05 % 0.08 % Expansion after 48 h 0.19% 0.19 % 0.19% 0.10 % 0.09 % 52 MPa 52 MPa 50 MPa 40 MPa 42 MPa Compressive strength 1 h (510 kg / cm<sup>2</sup>) (530 kg / cm<sup>2</sup>) (530 kg / cm<sup>2</sup>) (408 kg / cm<sup>2</sup>) (428 kg / cm<sup>2</sup>) 60 MPa (612 kg / cm²) 75 MPa (765 kg / cm²) 81 MPa 81 MPa 83 MPa Compressive strength 48 h (826 kg / cm<sup>2</sup>) (826 kg / cm<sup>2</sup>) (846 kg / cm<sup>2</sup>)

\* manual | \*\* vacuum, 240 rpm | \*\*\* Vicat





## Elite Model | Elite Model Fast

Type 3 stones for antagonists

#### **Model preparation** / Stone models

**Elite Model** is a high quality type 3 stone indicated for making antagonists and filling flasks in removable prosthesis applications with heat-curing resins.

#### Characteristics

- Low expansion
- High mechanical characteristics
- Universal use

#### Advantages

- Model fabrication facilitated by the high thixotropy
- Extreme versatility due to its superior characteristics compared to other stones of the same type



Elite Model

	Elite Model	Elite Model Fast
Application	Antagonist	Antagonist
Color	Ivory, Steel Blue	Light Cream, Sky Blue, White
Туре	3	3
Main feature	Thixotropic	Thixotropic
Water / Powder	30 ml / 100 g	30 ml / 100 g
Mixing time (m)*	1:00	1:00
Mixing time (v)**	0:30	0:30
Working time	7:00	4:00
Setting time***	12:00	8:00
Removal time	45:00	15:00
Expansion after 2 h	0.04 %	0.10 %
Expansion after 48 h	0.07 %	0.10 %
Compressive strength 1 h	31 MPa (316 kg / cm²)	36 MPa (366 kg / cm²)
Compressive strength 48 h	62 MPa (632 kg / cm²)	65 MPa (662 kg / cm²)



Elite Model Fast

\* manual | \*\* vacuum, 240 rpm | \*\*\* Vicat





Types 3 stones for articulators

**Elite Arti** is a type 3 stone with low expansion to keep the occlusion unaltered in the articulator.

#### Characteristics

- Thixotropic
- Minimal expansion
- Also available in fast version
- White colour

#### Advantages

- Minimal expansion to keep the occlusion unaltered
- Thixotropic to simplify positioning in the articulator



Elite Arti

	Elite Arti	Elite Arti Fast
Application	Mounting model for articulator	Mounting model for articulator
Color	White	White
Туре	3	3
Main feature	Thixotropic	Thixotropic
Water / Powder	30 ml / 100 g	30 ml / 100 g
Mixing time (m)*	1:00	0:45
Working time	3:00	2:00
Setting time**	5:00	3:00
Expansion after 2 h	0.02 %	0.02 %
Expansion after 48 h	0.06 %	0.06 %
Compressive strength 1 h	26 MPa (265 kg / cm²)	26 MPa (265 kg / cm²)
Compressive strength 48 h	59 MPa (602 kg / cm²)	59 MPa (602 kg / cm²)



Elite Arti

#### \* manual | \*\* Vicat



**Elite Ortho** is a specific stone for orthodontic models, glossy white.

#### Characteristics

- Glossy white
- Thixotropic
- Low expansion

#### Advantages

- Specific for orthodontic models
- Adapt for study models



Elite Ortho

	Elite Ortho
Application	Orthodontic model
Color	White
Туре	3
Main feature	Glossy white
Water / Powder	24 ml / 100 g
Mixing time (m)*	0:60
Mixing time (v)**	0:30
Working time	7:00
Setting time***	14:00
Removal time	45:00
Expansion after 2 h	0.04 %
Expansion after 48 h	0.05 %
Compressive strength 1 h	32 MPa (326 kg / cm²)
Compressive strength 48 h	60 MPa (612 kg / cm²)



Elite Ortho





## **Elite Dental Stones**

Codes

#### **Model preparation** / Stone models



	200 g	1 kg	3 kg	25 kg carton	25 kg drum
Elite Master					
Desert Sand	C410400	-	C410402	C410403	C410404
Sandy Brown	-	-	C410410	C410411	C410412
Soft Grey	-	-	C410406	-	-
Elite Rock					
Sandy Brown	C410033	C410032	C410030	C410200	C410334
Cream	-	-	C410020	C410201	C410332
Silver Grey	-	-	C410010	C410202	C410330
White	-	-	C410000	C410204	C410336
Elite Rock Fast					
Sandy Brown	C410152	C410151	C410150	C410205	-
Cream	-	-	C410160	C410207	-
Elite Base					
Terracotta Red	-	-	C410448	C410446	C410447
Royal Blue	-	-	C410437	C410435	C410436
Grey	-	-	C410440	-	C410439
Elite Stone					
Pink	-	-	C410048	C410214	C410315
Navy Blue	-	-	C410050	-	C410310
Brown	-	-	C410040	C410211	C410312
Aqua Green	-	-	C410043	-	C410313
Elite Model					
Steel Blue	-	C410071	C410070	C410221	-
lvory	-	C410081	C410080	C410220	C410304
Elite Model Fast					
Sky Blue	-	-	C410065	C410224	C410306
Light Cream	C410069	-	C410067	C410226	C410308
White	-	C410064	C410063	C410228	C410309
Elite Arti					
White	-	-	C410100	C410240	C410350
Elite Arti Fast					
White	C410107	-	C410105	C410241	C410351
Elite Ortho					
White	C410092	C410091	C410090	C410230	C410320



## **Elite Dental Stones**

Accessories

#### Model preparation / Stone models









## Model preparation

Zhermack products for the dental laboratory include a wide range of top quality silicones to simplify work and reduce the possibility of error.

We directly manage all phases of production to guarantee constant reliable quality.

A-SILICONES Elite Transparent	32
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Platinum 85	36
Platinum 95	36
C-SILICONES	
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A-Silicone

Model preparation / Masks

#### Elite Transparent is a transparent fluid two-component

addition silicone.

Formulated for making transparent silicone masks in the laboratory for composites and light-curing resins.

#### Characteristics

- Highly transparent
- Low viscosity
- High final hardness 72 Shore A



Elite Transparent

#### Advantages

- Shorter working times
- Composites or resins act on more compact surfaces without dispersion layer, thanks to the light curing in an oxygen free atmosphere
- Easy and quick to apply
- Possibility to retain the mask for future use



Elite Transparent result

		4
111	(	1121
111	ELITE TRANSPARENT	
	1- 38	
		1

Working time*	Setting time*	Linear dimensional	Hardness	Tensile	Tear
(min:s)	(min:s)	change (after 24 h)	(Shore A after 1 h)	strength	strength
1:30	15:00	0.18 %	72	6.5 N/mm²	

\*The times mentioned above are intended from the start of the mixing phase at 23 °C (73 °F).

Ente Transparent - A-		
Code		
C401600	1 x 50 ml cartr	

Elite Transparent - A-Silicone for masks	





## **Elite Transparent**

User's guide

#### Model preparation / Masks

#### Elite Transparent - Temporary restorations with Elite Transparent



1. Model



2. Wax-up



3. Application of Elite Transparent





4. Application of a transparent film to smooth the mask. Once this phase is complete, during silicone curing, the model can be placed under pressure at 2 bars







10. Filling the mask with composite (enamel)



7. Mask repositioning and light cure



11. Mask repositioning and light cure



END RESULT after finishing and polishing



9. Cut back (dentine reduction to make space for the enamel)



### Guide to use

A-Silicones vs C-Silicones

#### Model preparation / Masks

#### **Addition silicones**

- Excellent dimensional stability
- Resistant to heat up to 200°C
- Excellent surface definition

#### **Condensation silicones**

- Lower dimensional stability
- Resistant to heat up to 100°C
- Lower surface quality







#### Zetalabor (85 Shore A) Titanium (95 Shore A)

Indicated for short processes and use with heat-curing and self-curing resins.

Platinum 75 CAD Platinum 85 TOUCH Platinum 85 Platinum 95

Indicated for lengthy processes (e.g. work on implants with diagnostic wax-up), processes requiring high definition and detail reproduction (e.g. veneers), use with thermoplastic materials with a high curing temperature, heat-cured resins and self-curing resins.



#### **Examples of application**

**Removable prosthesis** with self-curing resin

**Removable prosthesis** 

prosthesis repair



ar



Removable prosthesis complete denture with hot curing resin



**Removable prosthesis** complete denture with self-curing resin





**Fixed prosthesis** silicone masks for composite temporary crown

**Fixed prosthesis** artificial gum with indirect technique










**Platinum** is a high precision addition silicone available in 95, 85, 85 TOUCH or 75 CAD versions. All silicones in the line are characterised by excellent dimensional stability, short working times and ease of use.

Zhermack offers a complete system of putty silicones with different hardnesses, delivering high performance in numerous applications, including dental aesthetics. To satisfy the various needs of daily practice, Platinum 75 CAD silicone is designed for scanning with CAD/CAM systems and is ideal in combination with Platinum 95 for excellent reproduction of details. Recommended to make masks and counter-moulds.



Platinum 85

#### Characteristics

- Availability in a wide range of hardnesses
- Accurate reproduction of details
- Resistant to heat up to 200° C
- Mixing ratio 1:1



Platinum 85 TOUCH



Platinum 95

#### Advantages

- Can be used for long processes (for example, implants with diagnostic wax-up) without altering the dimensional references
- Can be used with thermoplastic materials, thanks to heat resistance of up to 200° C
- Easy to work, including with a bur





Product	Counter-mould for removable prosthesis in thermoplastic materials	Counter-mould for removable prosthesis in heat-curing resins	Masks for prosthesis in self-curing resins	Use with verticulator	Masks for gingival reproduction in indirect technique	Masks for composite and polyglass composite provisional	Removable prosthesis repair	Occlusal key on articulator
Platinum 75 CAD*					0	0		•
Platinum 85 TOUCH		0	0		0	•	0	
Platinum 85	•	•	•	•	•	0	0	0
Platinum 95	0	0		•		0	0	•

 $lacel{eq:highly recommended}$   $\bigcirc$  recommended

\*scannable without using reflective sprays

Product	Mixing time (min:s)	Working time* (min:s)	Setting time* (min:s)	Detail reproduction (µm)	Elastic recovery	Strain in compression	Linear dimensional change (after 24 h)	Hardness (Shore A after 24 h)	Heat resistance
Platinum 75 CAD	0:30	1:00	7:00	20	> 99.5 %	< 1 %	0.05 %	75	200 °C
Platinum 85 TOUCH	0:30	1:00	7:00	20	> 99.5 %	< 1%	0.05 %	85	200 °C
Platinum 85	0:30	2:00	8:00	20	> 99.5 %	< 1 %	0.05 %	85	200 °C
Platinum 95	0:30	2:00	8:00	20	> 99.5 %	< 1 %	0.05 %	95	200 °C

\*The times mentioned above are intended from the start of the mixing phase at 23°C (73°F).



# Platinum

User's guide

#### Model preparation / Masks

### Platinum - Injectable technique with Platinum 85 TOUCH for temporary restorations



1. Master model



2. CrCo structure for reinforced temporary restoration



3. Waxed up structure



4. Construction of mask in Platinum 85 TOUCH



5. Mask removal



8. End of Acrytemp injection





9. Unfinished temporary restoration (following mask removal)



6. Once you have removed the wax, clean, rub and reposition the reinforcements on the model



END RESULT after finishing and polishing



7. Mask repositioning and Acrytemp injection

# Platinum - Indirect temporary restorations by using Platinum 85 TOUCH



1. Model



2. Mask in Platinum 85 TOUCH



3. Prepared model



4. Filling the mask with Acrytemp



5. Repositioning the mask onto the model and Acrytemp oozing out of the vent channels



6. Mask removal





Zhermack 1 Dental

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### Platinum - Removable complete denture with cold-curing resin for pouring technique



1. Waxed-up prosthesis



4. Secondary containment mask, in Platinum 95



7. Wax removal from model and teeth



2. Addition of pouring channels and creation of orientation points on the model





6. Mask removal



8. Repositioning the teeth in the silicone mask



5. Base construction in Platinum 95 to keep the structure in a vertical position,

marking of orientation points to check the correct repositioning of the silicone

9. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



13. The pouring is complete when the resin oozes out of the opposite channel

Add a central casting channel if the palate thickness is extremely slim. In this case, pour the resin in from the central channel



10. Mix and wait until you have a honey-like texture as shown



14. Result of the mask removal

11. Reposition the mask and secure it in the correct position with an elastic band



15. Polishing and finishing



12. Pour the resin into one of the two

16. FINISHED PROSTHESIS







Platinum Codes

#### Model preparation / Masks





Platinum 7	75 CAD - Scannable A-Silicone					
Code	Packaging					
C400741	1 tub 800 g Base + 1 tub 800 g Catalyst					

#### Platinum 85 TOUCH - High precision A-Silicone

Code	Packaging
C400750	1 tub 4.3 kg Base + 1 tub 4.3 kg Catalyst
C400751	1 tub 200 g Base + 1 tub 200 g Catalyst

#### Platinum 85 - High precision A-Silicone

Code	Packaging
C400727	1 tub 450 g Base + 1 tub 450 g Catalyst
C400725	1 tub 1 kg Base + 1 tub 1 kg Catalyst
C400723	1 tub 5 kg Base + 1 tub 5 kg Catalyst

#### Platinum 95 - High precision A-Silicone

Code	Packaging
C400720	1 tub 450 g Base + 1 tub 450 g Catalyst
C400700	1 tub 1 kg Base + 1 tub 1 kg Catalyst
C400710	1 tub 5 kg Base + 1 tub 5 kg Catalyst





**C-Silicones** 

#### Model preparation / Masks

Designed for the dental laboratory, **Zetalabor** and **Titanium** condensation silicones are characterised by high hardness and good mechanical properties.

They can be used in various applications requiring short times and not excessively high working temperatures. Zetalabor and Titanium are recommended for counter-moulds in removable prosthesis applications, masks for creating artificial gums using the indirect technique, moulds for preparation self-curing resins and numerous other applications. For more than 35 years, their ease of use has helped speed up laboratory procedures and improve the everyday performance of lab technicians.

**Indurent Gel** is the gel catalyst completing the range. Its characteristic red colour makes it easy to recognise when the mixture is homogeneous. Easy to measure, it can be used with all Zhermack condensation silicones.



Zetalabor

#### Characteristics

- Resistant to heat up to 100° C
- Good precision
- · Silicones to mix with the gel catalyst only

#### Advantages

- Time saving
- Excellent quality/price ratio
- For use with hot and cold resin techniques



Zetalabor



Zetalabor





Product	Counter-mould for removable prosthesis in heat-curing resins	Masks for prosthesis in self-curing resins	Masks for gingival reproduction in indirect technique	Masks for composite and polyglass composite provisional	Removable prosthesis repair	Occlusal key for mounting on articulator
Zetalabor	•	•	•	0	•	
Titanium	•	0			0	0
highly recomme	nded O recommended					

Product	Mixing time (min:s)	Working time* (min:s)	Setting time* (min:s)	Detail reproduction (µm)	Elastic recovery	Strain in compression	Linear dimensional change (after 24 h)	Hardness (Shore A after 24 h)
Zetalabor	0:30	2:00	6:00	20	99 %	< 1 %	0.10 %	80
Titanium	0:30	2:00	6:00	20	99 %	< 1 %	0.10 %	90

\*The times mentioned above are intended from the start of the mixing phase at 23 °C (73 °F).



# Zetalabor | Titanium

User's guide

#### Model preparation / Masks

### Zetalabor - Mixing technique



1. Take one or more measures of Zetalabor (note: the measuring spoon must be filled flush with the surface)



4. Fold the material onto itself



2. Spread Zetalabor on the palm of your hand and impress the rim of the measuring spoon onto the material as many times as the measures used



Mix together using your fingertips (to avoid heating the material), forming small S shapes



3. For each measure, spread two strips of Zhermack Indurent Gel catalyst the same length as the measure, i.e. about 4 cm



6. Mix until the material is even in colour, without stripes

#### Zetalabor - Injectable technique for temporary restorations



1. Master model



2. CrCo structure for reinforced temporary restoration



3. Waxed up structure



4. Construction of Zetalabor mask



5. Mask removal





8. End of Acrytemp injection



9. Unfinished temporary restoration (following mask removal)



6. Once you have removed the wax, clean, rub and reposition the reinforcements on the model



END RESULT after finishing and polishing



7. Mask repositioning and Acrytemp injection



#### Zetalabor - Indirect temporary restorations



1. Model



2. Zetalabor mask



3. Prepared model



4. Filling the mask with Acrytemp



5. Repositioning the mask onto the model and Acrytemp oozing out of the venting channels



6. Mask removal



END RESULT after finishing and polishing

# Zetalabor - Framework prosthesis with cold-curing resin for pouring technique



1. Model with framework prosthesis



2. Framework prosthesis on model and saddle with wax-up



3. Creation of the mask



4. Finishing the mask



5. Removal of wax and repositioning of teeth on the mask



6. Repositioning the mask onto the model with framework prosthesis



7. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



12. Polishing and finishing



8. Mix and wait until you have a honey-like texture as shown



END RESULT



9. Pour the resin



10. End of Acrytemp injection

n 11. Mask removal



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# Zetalabor | Titanium

User's guide

#### Model preparation / Masks

### Zetalabor - Removable complete denture with cold-curing resin for pouring technique



1. Master model with wax-up



4. Secondary containment mask, in Titanium



7. Wax removal from model and teeth



2. Addition of pouring channels and creation of orientation points on the model



5. Base construction in Titanium to keep the structure in a vertical position, marking of orientation points to check the correct repositioning of the silicone



8. Repositioning the teeth in the silicone mask



9. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin





6. Mask removal

3. Primary mask in Zetalabor, with total coverage of the wax-up

(allows superior detail reproduction of the wax-up)



10. Mix and wait until you have a honey-like texture as shown



14. Result of the mask removal

- ► This technique can also be used with Zetalabor only
- ► Add a central casting channel if the palate thickness is extremely slim. In this case, pour the resin in from the central channel





12. Pour the resin into one of the two pouring channels



FINISHED PROSTHESIS





15. Polishing and finishing

# Zetalabor - Prosthesis reparation with self-curing resin



1. Prosthesis for repair



5. Remove the prosthesis from the silicone base and prepare the broken prosthesis



2. Fixing the two parts of the prosthesis using sticky wax



6. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



3. Measuring and mixing Zetalabor (4 measures)



PROSTHESIS REPAIR



4. Creating the model in Zetalabor

### Zetalabor - Removable complete denture with heat-curing resin



1. Master model with wax-up



2. Filling the flask with the wax-up



3. Covering the teeth with Zetalabor, leaving the cusps and incisal margins free and creating mechanical retentions



4. Detail of the areas to leave free on the cusps and incisal margins



# Zetalabor | Titanium

Codes

Model preparation / Masks



#### Zetalabor - C-Silicone rigid

Code	Packaging
C400791	1 tub 900 g
C400790	1 tub 2.6 kg
C400811	1 tub 5 kg
C400804	1 tub 10 kg
C400812	1 tub 25 kg
C400798	1 tub 5 kg + 2 Indurent Gel 60 ml

#### Titanium - Lab putty C-Silicone extra-rigid

Code	Packaging
C400605	1 tub da 2.6 kg
C400611	1 tub 5 kg
C400818	1 tub 5 kg + 2 Indurent Gel 60 ml

#### Indurent Gel - Gel catalyst for C-Silicones

	Code	Packaging
-	C100700	1 tub 60 ml







# **Model preparation Duplication**

Interpreting the needs of lab technicians, Zhermack R&D laboratories have developed Elite Double, a wide range of duplication silicones characterised by accurate reproduction of details and excellent dimensional stability.

The high elasticity and high resistance to tearing make removal of the model from the silicone easy and safe.

For excellent results even in the most complex situations.

A-SILICONES	
Elite Double 8 5	52
Elite Double 16 Fast	52
Elite Double 22 5	52
Elite Double 22 Fast 5	52
Elite Double 22 Extra Fast 5	52
Elite Double 32 5	52
Elite Double 32 Fast 5	52



The **Elite Double** line includes a wide range of duplication silicones. Designed to meet the lab technician's different needs in both fixed and removable prosthesis applications. The range consists of 7 products.

Elite Double has different colours, four different final hardnesses and three setting times: normal, fast and extra fast, the latter formulated specifically for automatic mixers. Elite Double retains high and constant fluidity throughout the working time, delivering a homogeneous bubble-free result.

#### Characteristics

- Resistance to stretching and tearing, including with thin thicknesses
- Accurate reproduction of detail
- High fluidity
- High dimensional stability over time
- High elastic recovery





#### Advantages

- Optimisation of working times, particularly when compared with duplication with hydrocolloids (setting time 5:00, 10:00, 20:00)
- The model can be duplicated a number of times, thanks to the dimensional stability over time and high elastic recovery
- Compatible with stones, polyurethane resins, acrylic resins and phosphate and alcohol-based investments
- High fluidity: does not require mixing in a vacuum



Elite Double 22 Fast



Elite Double 16 Fast





Product	Duplication of cores, integral ceramic coating	Duplication of models, generally in gypsum and/or resin	Duplication of models, controlled expansion coating	Duplication of models, free expansion coating
Elite Double 8	•			
Elite Double 16 Fast	•	•	•	
Elite Double 22		•	•	
Elite Double 22 Fast		•	•	
Elite Double 22 Extra Fast		•	•	
Elite Double 32		•		•
Elite Double 32 Fast		•		•

Product	Mixing ratio	Manual mixing time* (min:s)	Mechanical mixing time with vacuum mixer* (min:s)	Working time* (min:s)	Setting time* (min:s)	Detail reproduction (µm)	Elastic recovery	Linear dimensional change (after 24 h)	Hardness (Shore A)	Load at break	Elongation at break	Tear resistance
Elite Double 8	1:1	1:00	0:30	10:00	20:00	2	99.95 %	0.05 %	8	2 N/mm²	380 %	2.5 N/mm <sup>2</sup>
Elite Double 16 Fast	1:1	1:00	0:30	5:00	10:00	2	99.95 %	0.05 %	16	2.5 N/mm <sup>2</sup>	550 %	5 N/mm²
Elite Double 22	1:1	1:00	0:30	10:00	20:00	2	99.95 %	0.05 %	22	2.5 N/mm <sup>2</sup>	450 %	5 N/mm²
Elite Double 22 Fast	1:1	1:00	0:30	5:00	10:00	2	99.95 %	0.05 %	22	2.5 N/mm <sup>2</sup>	450 %	5 N/mm²
Elite Double 22 Extra Fast	1:1	Automatic mixer	Automatic mixer	1:30	5:00	2	99.95 %	0.05 %	22	2.5 N/mm <sup>2</sup>	450 %	5 N/mm²
Elite Double 32	1:1	1:00	0:30	10:00	20:00	2	99.95 %	0.05 %	32	2.5 N/mm <sup>2</sup>	350 %	5 N/mm²
Elite Double 32 Fast	1:1	1:00	0:30	5:00	10:00	2	99.95 %	0.05 %	32	2.5 N/mm <sup>2</sup>	350 %	5 N/mm²

\*The times mentioned above are intended from the start of the mixing phase at 23 °C (73 °F).



# Elite Double

User's guide

#### Model preparation / Duplication

### Elite Double - Removable complete denture with cold-curing resin for pouring technique



1. Waxed-up prosthesis



2. Fixing the model to the base of the flask, using sticky wax



3. Application of pouring channels



4. Closing the flask



5. Pour Elite Double 16 into the flask



6. Opening the flask



7. Wax removal from model and teeth



8. Repositioning the teeth



9. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



13. The pouring is complete when the resin oozes out of the side channels



10. Mix and wait until you have a honey-like texture as shown



14. Result upon opening the flask



11. Close the flask again and secure it in the correct position with an elastic band



15. Polishing and finishing



12. Pour the resin into the central pouring channel



FINISHED PROSTHESIS





### Elite Double - Removable complete denture with cold-curing resin for pouring technique



1. Waxed-up prosthesis



5. Pour Elite Double 16



8 Mask removal



2. Application of pouring channels and creation of rientation points on the model



6. Secondary containment mask in Platinum 95



9. Wax removal from model and teeth



3. Cover the palate with Platinum 95



4. Model boxing using adhesive wax



7. Base construction in Platinum 95 to keep the structure in a vertical position, marking of orientation points to check the correct repositioning of the silicone



10. Repositioning the teeth in the silicone mask



11. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



12. Mix and wait until you have a honey-like texture as shown



16. Result of the mask removal



13. Reposition the mask and secure it in the correct position with an elastic band



17. Polishing and finishing



14. Pour the resin into one of the two pouring channels



FINISHED PROSTHESIS



15. The pouring is complete when the resin oozes out of the opposite channel

► Add a central pouring channel if the palate thickness is extremely slim. In this case, pour the resin in from the central channel



# Elite Double

User's guide

#### Model preparation / Duplication

# Elite Double - Model duplication



1. Master model



2. Fixing the model to the base of the flask, using adhesive wax



3. Closing the flask



4. Pour Elite Double 22 into the flask



5. Opening the flask



6. Pour the investment into the silicone



DUPLICATE MODEL





#### Model preparation / Duplication



#### Elite Double 8 - A-Silicone for model duplication

Code	Packaging
C400820	250 g (Base) + 250 g (Catalyst)
C400830	1 kg (Base) + 1 kg (Catalyst)

#### Elite Double 16 Fast - A-Silicone for model duplication

Code	Packaging
C400825	250 g (Base) + 250 g (Catalyst)
C400831	1 kg (Base) + 1 kg (Catalyst)
C400847	5 kg (Base) + 5 kg (Catalyst)

#### Elite Double 22 - A-Silicone for model duplication

Code	Packaging
C400821	250 g (Base) + 250 g (Catalyst)
C400832	1 kg (Base) + 1 kg (Catalyst)
C400840	5 kg (Base) + 5 kg (Catalyst)

#### Elite Double 22 Fast - A-Silicone for model duplication

Code	Packaging
C400823	250 g (Base) + 250 g (Catalyst)
C400834	1 kg (Base) + 1 kg (Catalyst)
C400842	5 kg (Base) + 5 kg (Catalyst)





### Elite Double 22 Extra Fast - A-Silicone for model duplication

#### Elite Double 32 - A-Silicone for model duplication

Code	Packaging
C400833	1 kg (Base) + 1 kg (Catalyst)
C400841	5 kg (Base) + 5 kg (Catalyst)

#### Elite Double 32 Fast - A-Silicone for model duplication

Code	Packaging
C400836	1 kg (Base) + 1 kg (Catalyst)
C400843	5 kg (Base) + 5 kg (Catalyst)

#### ACCESSORIES







# Model preparation Gingival reproduction

To reproduce artificial gengiva on a model, Zhermack offers top quality, precise polyvinylsiloxane products with long stability to facilitate work in the laboratory.

They retain their characteristics unaltered throughout all phases of the process, giving the lab technician more peace of mind.

#### A-SILICONES

Gingifast Elastic	62
Gingifast Rigid	62
Gingifast CAD Elastic	62
Gingifast CAD Rigid	62



**Gingifast** addition silicones are conceived to reproduce gingival morphology on models in fixed prosthesis and implant applications.

Zhermack proposes the most suitable gum mask for all types of application.

**Gingifast Elastic** guarantees excellent aesthetic results, thanks to its translucence and the presence of fibrils to give a natural effect. Particularly suitable in the presence of undercuts and thin thicknesses.

**Gingifast Rigid** is indicated for the direct technique. Thanks to its balanced hardness, it can be worked easily with burs and is the top product in the field of implant prosthetics.

**Gingifast CAD**, a scannable fluid silicone available in two versions, Rigid and Elastic, completes the range. Scannable and readable without requiring reflective sprays, it is conceived for maximum performance in acquiring 3D data, saving time, simplifying processes and improving quality.



Gingifast Rigid - direct technique

#### Characteristics

- Various hardnesses: Elastic 40 Shore A, Rigid 70 Shore A
- Setting time: 10:00
- Mixing ratio 1:1



- Compatible with the various techniques used to make artificial gums (direct and indirect)
- Excellent aesthetic results
- With the Gingifast CAD formula, very small mixing tips can be used reducing silicone waste



Gingifast Rigid



Gingifast Elastic - indirect technique



Product	Recommended in the presence of undercuts	Recommended in the presence of implants
Gingifast Elastic	•	0
Gingifast Rigid	0	•
Gingifast CAD Elastic	•	•
Gingifast CAD Rigid	0	•

 $lacel{eq:highly recommended}$   $\bigcirc$  recommended

Product	Mixing ratio (Base:Catalyst)	Working time* (min:s)	Setting time* (min:s)	Hardness (Shore A)	Scannable without sprays	Workable with a bur
Gingifast Elastic	1:1	2:00	10:00	40		
Gingifast Rigid	1:1	2:00	10:00	70		•
Gingifast CAD Elastic	1:1	2:00	10:00	40	•	•
Gingifast CAD Rigid	1:1	2:00	10:00	70	•	•

\*The times mentioned above are intended from the start of the mixing phase at 23 °C (73 °F).



# Gingifast

Tech guide

#### **Model preparation** / Gingival reproduction

### Gingifast Rigid - Simultaneous technique



1. Analogue impression



2. Wax barriers



3. Application of the separator



4. Application of Gingifast Rigid



5. Creation of orientation points and impression boxing



6. Gypsum casting



END RESULT

# Gingifast Elastic - Indirect technique



1. Master model



2. Zetalabor mask



3. Mask removal



4. Diestone

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Dental



8. Gingifast Elastic injection complete (material oozes out of the venting channels)

Zhermack 1



9. Mask removal (venting channels present on the gum) and subsequent finishing of the gum, eliminating the venting channels



7. Injection of Gingifast Elastic inside the mask



END RESULT







5. Creation of holes for silicone injection and application of the separator to the mask



6. Mask repositioning onto the master model



#### Model preparation / Gingival reproduction





Gingifast Elastic - A-Silicone for gingival reproduction					
Code	Packaging				
C401500	2 x 50 ml cartridges + 1 Gingifast Separator bottle 10 ml + 12 yellow mixing tips + 12 yellow intraoral tips + 1 spray				



Gingifast R	Gingifast Rigid - A-Silicone for gingival reproduction		
Code	Packaging		
C401520	2 x 50 ml cartridges + 1 Gingifast Separator bottle 10 ml + 12 yellow mixing tips + 12 yellow intraoral tips + 1 spray		



#### Gingifast CAD Elastic - Scannable A-Silicone for gingival reproduction

5	· · · · · · · · · · · · · · · · · · ·
Code	Packaging
C203227	2 x 50 ml cartridges + 1 Gingifast Separator bottle 10 ml + 12 blue mixing tips



#### Gingifast CAD Rigid - Scannable A-Silicone for gingival reproduction

(	Code	Packaging
C203	232	2 x 50 ml cartridges + 1 Gingifast Separator bottle 10 ml + 12 blue mixing tips



#### Model preparation / Gingival reproduction









# Prosthesis preparation

Constant research, continuous improvement and years of experience in prosthodontics have enabled Zhermack to develop a system of high quality laboratory solutions that work in synergy to create accurate and aesthetic prostheses.

In particular, Villacryl line includes a wide range of heat curing, cold curing and self-curing acrylic resins for dentures, repairs and custom impression trays.

Zhermack's Villacryl resins simplify the work of the lab technician and allow high performance prostheses to be made easily, quickly and cheaply.



# **Prosthesis preparation Full and partial** dentures

The Villacryl line includes various acrylic resin types (heat-curing and cold-curing) to satisfy different denture requirements.

Users benefit from extended durability, good impact resistance and flexural strength.

Different colours and degrees of opacity are also available, with high stability over time and compatibility with soft tissues for greater patient comfort.

HEAT-C	URING	ACRYLIC	RESINS

Villacryl F	I Plus	72
Villacryl H	Rapid FN	72

**COLD-CURING ACRYLIC RESIN** Villacryl SP ..... 74


### Villacryl H Plus | Villacryl H Rapid FN

Heat-curing acrylic resins

#### Prosthesis preparation / Full and partial dentures

#### Villacryl H Plus and Villacryl H Rapid FN are heat-curing

acrylic resins, specially formulated for denture bases, removable full or partial prostheses and for the indirect relining of removable prostheses. They are easy to prepare and finish and, thanks to their natural colours, produce highly aesthetic results.

#### Characteristics

- Metal free
- Biologically neutral
- High mechanical strength
- Villacryl H Plus comes in 5 colours: pink veined (V4), pink (T4), milk pink veined (V2), transparent (0), dark pink veined (V3)
- Villacryl H Rapid FN: pink veined (V4)







- Villacryl H Rapid FN: faster processing (saves about 60 minutes in denture production)
- They can be relined by soft and hard reliners
- Extended colour stability
- Highly aesthetic dentures



Villacryl H Plus



Villacryl shade guide



	Villacryl H Plus	Villacryl H Rapid FN	
Mixing ratio	24 g powder / 10.5 ml (10 g) liquid	22 g powder / 10 ml (9.5 g) liquid	
Dough time* (min:sec)	20:00 - 25:00	8:00 - 10:00	
Working time (min:sec)	25:00 - 30:00 20:00		
Polymerization process (min:sec)	gymerization process (min:sec) 60 °C -> 100 °C 100 °C 30:00 30:00 80 °C -> 100 °C 100 °C 10:00 20:00   cooling to 30 °C 30:00 cooling to 30 °C 15:00		
Flexural strength	> 65 MPa > 65 MPa		
Solubility	0.8 μg/mm³ [< 1.6 μg/mm³]** 0.8 μg/mm³ [< 1.6 μg/mm³]**		
Sorption	19.1 μg/mm³ [< 32 μg/mm³]** 18.7 μg/mm³ [< 32 μg/mm³]**		
Colours	Colours V2 MILK PINK VEINED V3 DARK PINK VEINED V4 PINK VEINED T4 PINK 0 TRANSPARENT V2 MILK PINK VEINED V4 PINK VEINED		

\* Times refer to 23 °C - 73 °F \*\* EN ISO 20795

#### Combining heat-curing acrylic resins with Zetalabor



See page 42 for more information.



Cold-curing acrylic resin

#### Prosthesis preparation / Full and partial dentures

**Villacryl SP** is a cold-curing acrylic resin for frameworks, making partial and full prostheses by pouring in hydrocolloids, mask silicones and duplicating silicones. It can also be used for repairs and for indirect relining.

#### Characteristics

- Metal free
- Biologically neutral
- 3 colours: pink veined (V4), milk pink veined (V2), transparent (0)



Villacryl SP for pouring technique

#### **Advantages**

- Rapid denture production by pouring with a silicone matrix
- Easy to prepare and finish
- Good masking of metal parts



Villacryl SP

	Villacryl SP
Mixing ratio	10 g powder / 5.2 ml (5 g) liquid 10 g powder / 7 ml (6.7 g) liquid - frameworks
Pouring time* (min:sec)	2:00 4:00 - frameworks
Polymerization process (min:sec)	65 °C 20:00 2 bar
Flexural strength	>60 MPa
Solubility	1.4 μg/mm³ [< 8 μg/mm³]**
Sorption	18.7 μg/mm³ [< 32 μg/mm³]**
Colours	V2 MILK PINK VEINED V4 PINK VEINED 0 TRANSPARENT

\* Times refer to 23 °C - 73 °F \*\* EN ISO 20795



## Villacryl SP

User's guide

#### **Prosthesis preparation** / Full and partial dentures

# \*

#### Villacryl SP - Mixing technique



monomer. Mixing ratio: 10 g of resin and

6.7 g (7 ml) of monomer



2. First pour the monomer



3. Next, pour the resin



4. Mix and wait until you have a honey-like texture as shown

#### Villacryl SP - Framework prosthesis with cold-curing resin for pouring technique



1. Model with framework



2. Framework on model and saddle with wax-up



3. Creation of the mask



4. Finishing the mask



5. Removal of wax and repositioning of teeth on the mask



9. Pour the resin



6. Repositioning the mask onto the model with framework



10. Result after resin curing



7. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



11. Mask removal



8. Mix and wait until you have a honey-like texture as shown



12. Polishing and finishing



END RESULT



# Villacryl SP

User's guide

#### Prosthesis preparation / Full and partial dentures

#### **Villacryl SP** - Removable complete denture with cold-curing resin for pouring technique • version 1



1. Waxed-up prosthesis



5. Pour Elite Double 16

8. Mask removal



2. Application of pouring channels and creation of orientation points on the model



6. Secondary containment mask in Platinum 95



9. Wax removal from model and teeth



3. Cover the palate with Platinum 95



4. Model boxing using sticky wax



7. Base construction in Platinum 95 to keep the structure in a vertical position, marking of orientation points to check the correct repositioning of the silicone



10. Repositioning the teeth in the silicone mask



11. Weigh the resin, measure the monomer and mix, pouring the monomer in first and then the resin



12. Mix and wait until you have a honey-like texture as shown



16. Result of the mask removal



13. Reposition the mask and secure it in the correct position with an elastic band



17. Polishing and finishing



14. Pour the resin into one of the two pouring channels



FINISHED PROSTHESIS



15. The pouring is complete when the resin oozes out of the opposite channel

 Add a central casting channel if the palate thickness is extremely slim. In this case, pour the resin in from the central channel





#### **Villacryl SP** - Removable complete denture with cold-curing resin for pouring technique • version 2



1. Waxed-up prosthesis



4. Secondary containment mask in Platinum 95



7. Wax removal from model and teeth



2. Application of pouring channels and creation of orientation points on the model



5. Base construction in Platinum 95 to keep the structure in a vertical position, marking of orientation points to check the correct repositioning of the silicone



8. Repositioning the teeth in the silicone mask





13. The pouring is complete when the resin oozes out of the opposite channel

Add a central casting channel if the palate thickness is extremely slim. In this case, pour the resin in from the central channel



6. Mask removal

3. Primary mask in Platinum 85 TOUCH, with total coverage of the wax-up

(allows superior detail reproduction of the wax-up)



10. Mix and wait until you have a honey-like texture as shown



14. Result of the mask removal



11. Reposition the mask and secure it in the correct position with an elastic band



15. Polishing and finishing



12. Pour the resin into one of the

two pouring channels

FINISHED PROSTHESIS



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# Villacryl H Plus | Villacryl H Rapid FN | Villacyl SP

Codes

**Prosthesis preparation** / Full and partial dentures



#### Villacryl H Plus - Heat-curing acrylic resin

Code	Colour	Packaging
Kits		
V100V2Z09	V2	750 g tub + 400 ml bottle
V100V3Z11	<b>V3</b>	750 g tub + 400 ml bottle
V100V4Z13	V4	300 g tub + 150 ml bottle
V100V4Z12	V4	750 g tub + 400 ml bottle
V100T4Z08	<b>T4</b>	750 g tub + 400 ml bottle
V1000Z02	0	750 g tub + 400 ml bottle
Refill - Powder		
V100V2P18	V2	750 g tub
V100V2P17	V2	2 kg tub
V100V2P10	V2	4 kg tub
V100V4P15	V4	750 g tub
V100V4P13	V4	2 kg tub
V100V4P14	V4	4 kg tub
V1000P04	0	750 g tub
V1000P03	0	4 kg tub
Refill - Liquid		
V100L06		400 ml bottle
V100L05		1 litre bottle







#### Villacryl H Rapid FN - Heat-curing acrylic resin

#### Villacryl SP - Cold-curing acrylic resin

Code	Colour	Packaging
Kits		
V120V2Z03	V2	500 g tub + 300 ml bottle
V120V4Z04	V4	500 g tub + 300 ml bottle
V1200Z01	0	500 g tub + 300 ml bottle
Refill - Powder		
V120V4P05	V4	500 g tub
Refill - Liquid		
V120L06		300 ml bottle



Accessories available. More details on page 89





# Prosthesis preparation Reparation

Villacryl S is the line of self-curing acrylic resins for repairing.

The acrylic resins and their colours are optimized to be used in combination with Villacryl line for perfect adhesion and colour matching.



Self-curing acrylic resin

#### Prosthesis preparation / Reparation

Villacryl S is a self-curing acrylic resin for the repair and indirect relining of removable prostheses.

#### **Characteristics**

- Metal free
- Biologically neutral
- 4 colours: pink veined (V4), pink (T4), milk pink veined (V2), transparent (0)



Villacryl S - Pink veined

#### **Advantages**

- Easy to prepare and finish
- Fast repairs, thanks to excellent adhesion to heat-curing acrylic resin
- Aesthetic repairs thanks to colour matching with Villacryl H Plus, Villacryl H Rapid and Villacryl SP

Villacryl S



Villacryl S and Zetalabor



Villacryl	S shade	guide
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Mixing ratio	10 g powder / 5.3 ml (5 g) liquid	
Working time (min:sec)	8:00	
Polymerization process (min:sec)	50 - 60 °C 15:00 2 bar	
Self-curing time* (min:sec)	about 16:00	
Flexural strength	> 60 MPa	
Solubility	0.7 μg/mm³ [<8 μg/mm³]**	
Sorption	21.8 μg/mm³ [<32 μg/mm³]**	
Colours	V2 MILK PINK VEINED V4 PINK VEINED T4 PINK 0 TRANSPARENT	

\* Times refer to 23 °C - 73 °F \*\* EN ISO 20795



Villacryl S

Prosthesis preparation / Reparation





#### Villacryl S - Self-curing acrylic resin for removable prosthesis repairs

Code	Colour	Packaging	
Kits			
V130V2Z04	V2	100 g tub + 50 ml bottle	
V130V4Z05	V4	100 g tub + 50 ml bottle	
V130T4Z03	<b>T4</b>	100 g tub + 50 ml bottle	
V1300Z01	0	100 g tub + 50 ml bottle	
Refill - Powder	Refill - Powder		
V130V4P06	V4	1 kg tub	
Refill - Liquid			
V130L02		200 ml bottle	
V130L07		500 ml bottle	



Accessories available. More details on page 89





### Prosthesis preparation

# **Custom trays**

For custom trays and bases for mounting teeth, Zhermack offers different resins adaptable to the main dental laboratory needs.

Easy and quick to use, Elite LC Tray is the line of light-curing resin plates to optimise working times without compromising on quality. Villacryl IT is a self-curing acrylic resin, ready to use immediately after mixing.

SELF-CURING ACRYLIC RESIN		
Villacryl IT	86	

LIGHT-CURING RESINS		
Elite LC Tray		
Elite LC Tray ROUND		





**Villacryl IT** is a self-curing acrylic resin for custom trays and bases for wax bite rims.

#### Characteristics

- Rigid and stable
- Metal free
- 2 colours: green and pink

#### **Advantages**

- Easy to prepare and finish
- Ready for use immediately after mixing
- Does not stick to hands





Villacryl IT - Green





Villacryl IT - Green

\* Times refer to 23 °C - 73 °F



Villacryl IT Codes





#### Villacryl IT - Self-curing acrylic resin for custom trays

Code	Colour	Packaging
Kits		
V140ZZ04		750 g tub + 200 ml bottle
V140RZ03		750 g tub + 200 ml bottle
Refill - Powder		
V140ZP02		750 g tub
Refill - Liquid		
V140ZL01		200 ml bottle



Accessories available. More details on page 89











### Elite LC Tray | Elite LC Tray ROUND

Light-curing resins

#### Prosthesis preparation / Custom trays

**Elite LC Tray** is a line of light-curing resin plates for custom impression trays. Also indicated for making bases for mounting teeth and bite plates in removable prosthesis modeling.

**Elite LC Tray** can be used to make bases and custom trays of various sizes to meet the main requirements in this application. **Elite LC Tray ROUND** is particularly indicated for laboratories wanting medium-sized ergonomic plates.

#### Characteristics

- Cured with either halogen or UV light (3 5 minutes)
- Stable to daylight or artificial light for about 20:00
- Available in three colours: blue, white and pink
- Minimum shrinkage after curing

#### **Advantages**

- Easy to model, not sticky
- Quick, saves time with respect to traditional self-curing resins
- Uniform thickness









Elite LC Tray

Product	Setting time (min:s)	Thickness	Hardness (Shore D)	Curing
Elite LC Tray	3:00 - 5:00	2.5 mm	80	UV light (350 - 400 nm) Halogen light (420 - 480 nm)
Elite LC Tray ROUND	3:00 - 5:00	2.5 mm	80	UV light (350 - 400 nm) Halogen light (420 - 480 nm)

### Elite LC Tray - Light curing resin for custom impression trays

Codes	Packaging
D500011	Elite LC Tray White (50 pcs)
D500021	Elite LC Tray Pink (50 pcs)
D500031	Elite LC Tray Blue (50 pcs)

### Elite LC Tray ROUND - Light curing resin for custom impression trays

Codes	Packaging
D500050	Elite LC Tray ROUND White (50 pcs)
D500052	Elite LC Tray ROUND Pink (50 pcs)







#### Prosthesis preparation

# **Temporary restorations**

Acrytemp is the ideal choice to make provisional crowns and bridges, onlays, inlays and veneers in an easy and fast way, with a high aesthetic impact.

It is available in self-mixing cartridges, for a correct and fast application.



Prosthesis preparation / Temporary restorations

**Acrytemp** is a bisacrylic self-curing resin for the fast preparation of short and long-term provisional elements. **Acrytemp** can be used with different working techniques, both for direct and indirect method.

It is practical to use, thanks to the self-mixing system, easy to trim and polish, with a high fracture resistance. Its particular formulation is without methyl methacrylate monomer and allows to maintain low temperatures during the setting reaction that does not irritate the pulp. Acrytemp is available in 5 shades and offers a natural aesthetic effect that reproduces the colour of teeth, to meet the needs of the patients and of the dentist.



Acrytemp

#### Characteristics

- High fracture resistance
- Methyl methacrylate monomer free
- Low temperature increase during the setting reaction
- The colourings A1; A2; A3; A3.5; B1 allow to meet the most common clinical situations
- Natural fluorescence
- Self-mixing system in 50 ml (4:1) cartridge for an optimal dosage and time saving



#### Advantages

- Easy handling
- Can be easily trimmed and polished
- Respects the pulp, due to low exothermic setting reaction
- No irritations
- · Natural aesthetics effect of the finished provisional elements



Acrytemp



Elastic phase from application (min:s) Recommended applications Working time (min:s) Setting time (min:s) Compressive strength Product Flexural strength Temporary crowns 1:00 - 2:00 (35 °C) 4:30 (45 - 55 °C) and bridges, inlays, onlays 0:50 250 MPa 65 MPa Acrytemp 3:00 - 4:00 (23 °C) 6:00 (23 °C) and veneers



#### Acrytemp - Resin for temporary elements

Code	Colour	Packaging
C700201	A1	Standard Pack: 1 cartridge 50 ml (76 g) + 15 mixing tips 4:1
C700200	A2	Standard Pack: 1 cartridge 50 ml (76 g) + 15 mixing tips 4:1
C700215	A3	Standard Pack: 1 cartridge 50 ml (76 g) + 15 mixing tips 4:1
C700205	A3.5	Standard Pack: 1 cartridge 50 ml (76 g) + 15 mixing tips 4:1
C700211	B1	Standard Pack: 1 cartridge 50 ml (76 g) + 15 mixing tips 4:1

#### ACCESSORIES





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**Prosthesis preparation** 

# Investments

The Elite Vest line of investments is conceived to simplify the use of the investment in the laboratory and reduce stocks.

All the most common fixed and removable prosthesis applications can be covered with just two powders (one for fixed prostheses and one for frameworks) and a universal liquid.

#### **PHOSPHATE INVESTMENTS** Elite Vest Plus \_\_\_\_\_ 98 Elite Vest Cast 98



#### Prosthesis preparation / Investments

Just two types of powder and one universal liquid allow casts to be made with all alloys\* and pressable ceramics.

Elite Vest Plus is the universal precision investment for fixed prostheses, compatible with non precious alloys\*, precious alloys and pressable ceramics. Elite Vest Cast is a precision investment specific for frameworks, compatible with base alloys\* and precious alloys. Elite Vest Liquid is the universal mixing liquid for both investments.

#### Characteristics

- Quick or traditional preheating
- Fine powder, carbon-free formulas with expansion adaptable to the working technique
- Excellent precision, particularly in implants and large bridges



Elite Vest Plus

#### Advantages

- Easy to use and manage: just two products for all types of work
- Flexibility: expansion can be adapted to the different needs
- Work speed: smooth alloy surface after preparation



Elite Vest Plus - cast metal coping



Elite Vest Plus

\* excluding titanium alloys



Product	Fixed prosthesis (crowns, inlays, onlays)		(crowns and bride	rosthesis ges, partial crowns, elescopic crowns)	Frameworks (combined extended removable partial prosthesis in a single piece, combined extended removable partial prosthesis with clasps, normal removable partial prosthesis)	
	Pressable ceramics	Au alloys with a high gold content	Au alloys with a low gold content	Palladium alloys	Base alloys	
Elite Vest Plus	•	•	•	•	•	
Elite Vest Cast						•
Elite Vest Liquid	•	•	•	•	•	•

Technical features	Elite Vest Plus	Elite Vest Cast
Powder/liquid ratio (Elite Vest Liquid)	100 g / 24 - 26 ml	100 g / 18 - 20 ml
Manual mixing time (min:s)	00:15 - 00:30	00:15 - 00:20
Vacuum mixing time (320 rpm) (min:s)	00:60	00:60
Vacuum maintenance time after mixing (min:s)	00:15 - 00:30	00:10 - 00:15
Working time* (min:s)	6:00	5:00
Time in preheat oven (from start of mixing) (min:s)	23:00 - 25:00	23:00 - 25:00
Ideal liquid storage temperature	18 - 22 °C (> 5 °C)	18 - 22 °C (> 5 °C)
Preheat temperature	850 - 900 °C	900 - 930 °C
Maximum preheat temperature	1200 °C	1050 °C

\*Times indicated may vary according to room temperature.



#### Prosthesis preparation / Investments





C420000

C420002

Elite Vest Plus	
Code	

40 x 160 g bag

30 x 400 g bag



#### **Elite Vest Cast** Code





#### **Elite Vest Liquid**

Code C420010 Bottle 1 L Packaging

Packaging



#### Prosthesis preparation / Investments





Ring 9 x





# Hygiene

Cleaning and disinfecting impressions coming from the dental surgery are a safeguard against infections. Choosing effective products with a broad spectrum of action is therefore essential to protect the health of laboratory technicians.

Quick acting easy-to-use products, free from toxic substances such as phenols and aldehydes. Like the products in the Zeta Hygiene range, developed from Zhermack's experience in the cold disinfection and sterilisation of medical-surgical devices. Comprehensive solutions, regulated by strict production standards and controlled and tested according to the most recent European regulations for an adequate protection every time.



Hygiene

# Hygiene lab applications

Solutions for impressions cleaning and disinfection and for the cleaning of alginate and gypsum residues on instruments.

		Spray	
Zeta	7	Solution	.106

TRAYS AND INSTRUMENTS GYP AND ALGINATE REMOVERS	SUM
Algitray	107
Gypstray	



### Zeta 7 Spray | Zeta 7 Solution

Impressions disinfectants

#### Hygiene / Hygiene lab applications

Zhermack offers high performance products for impression disinfection. A broad spectrum of action (bactericidal, yeasticidal, tuberculocidal and virucidal according to the latest European Norms validated on disinfection) and high compatibility with different types of impression material.

**Zeta 7 Spray** is a ready to use disinfectant for a quick and easy disinfection of impressions.

Zeta 7 Solution is a broad spectrum concentrated disinfectant.



Zeta 7 Spray

#### Characteristics

- Broad spectrum of action developed and tested according to the latest European Norms on disinfection
- Compatibility with materials for the impression taking (addition and condensation silicones, alginate, polyether, polysulphide and polyvinyl)



- **Efficacy:** broad protection for professionals in dental practices and laboratories
- **High performance:** respects the dimensional stability of impressions characteristics and their compatibility with gypsum and improves accuracy in the reproduction of gypsum models



Zeta 7 Solution

Product	Type produ			tive dients	Dilution	Action time (min:s)	Distinctive characteristics	Spectrum of action
Zeta 7 Spray	Disinfec	ctant	Alcohols		Ready to use	3:00	Improve smoothness of gypsum on impressions surfaces and reduce the formation of bubbles	Bactericidal: EN 13727 (S. aureus, P. aeruginosa, E. hirae) Yeasticidal: EN 13624 (C. albicans) Tuberculocidal: EN 14348, EN 14563 (M. terrae) Virucidal: EN 14476 (Poliovirus, Adenovirus, Parvovirus, Norovirus including HIV, HBV, HCV) Tests carried out in dirty conditions.
Zeta 7 Solution	Disinfeo	ctant	Quaternary Ammonium Salts, Phenoxyethanol		1 %	10:00	Concentrated, allows for the preparation of up to 100 litres of disinfectant solution	Bactericidal: EN 13727 (S. aureus, P. aeruginosa, E. hirae) Yeasticidal: EN 13624 (C. albicans) Tuberculocidal: EN 14348, EN 14563 (M. terrae) Limited virucidal: EN 14476 (Poliovirus, Adenovirus, Parvovirus, including HIV, HBV, HCV) Tests carried out in dirty conditions.
		Cod	le	F	Product			Packaging
<b>7. m</b>	C	C810050		Zet	ta 7 Spray	750 ml bottle with foam cap		
	C	C810048		Zeta	Zeta 7 Solution 1 litre bottle			



Hygiene / Hygiene lab applications

**Algitray** and **Gypstray** are ideal for the cleaning and removal of alginates and gypsum residues from trays and instruments. Guarantees deep cleaning action even in less accessible areas, with respect for to treated materials.

**Algitray** is a specific neutral pH cleaner for the removal of alginate residues from impression trays and instrument.

**Gypstray** is a ready to use solution for the removal of gypsum residues from impression trays, spatulas or other instruments.



Algitray and Gypstray

#### Advantages

- Efficacy: help remove traces of alginate and gypsum even in less accessible areas
- Protection of materials: non-aggressive formula

Product	Type of product	Active ingredients	Dilution		
Algitray	Cleaner for removing alginate residues	Alginate dissolvers	Solution powder: 10 %		
Gypstray	Cleaner for removing gypsum residues	Gypsum dissolvers	Ready to use		









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# Fulfilling your needs

