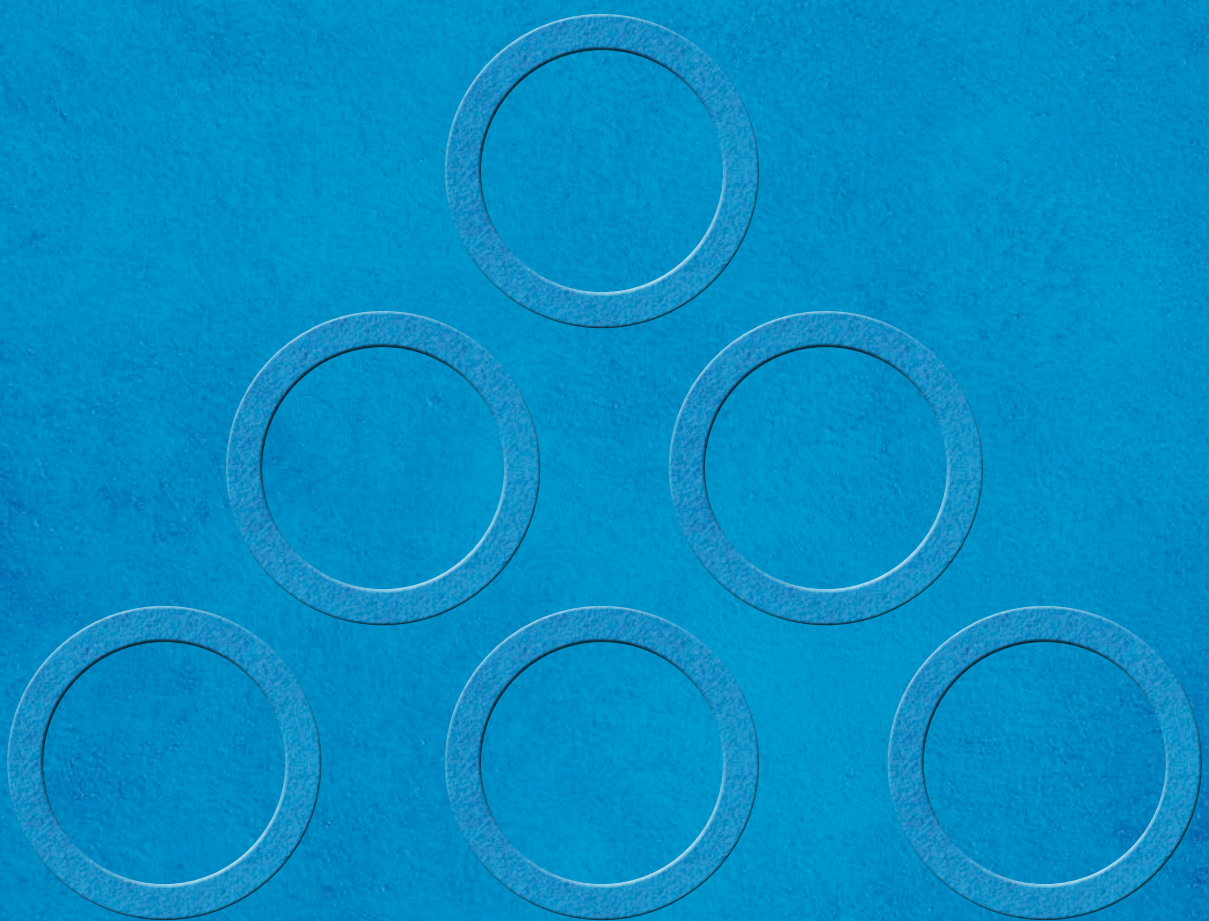
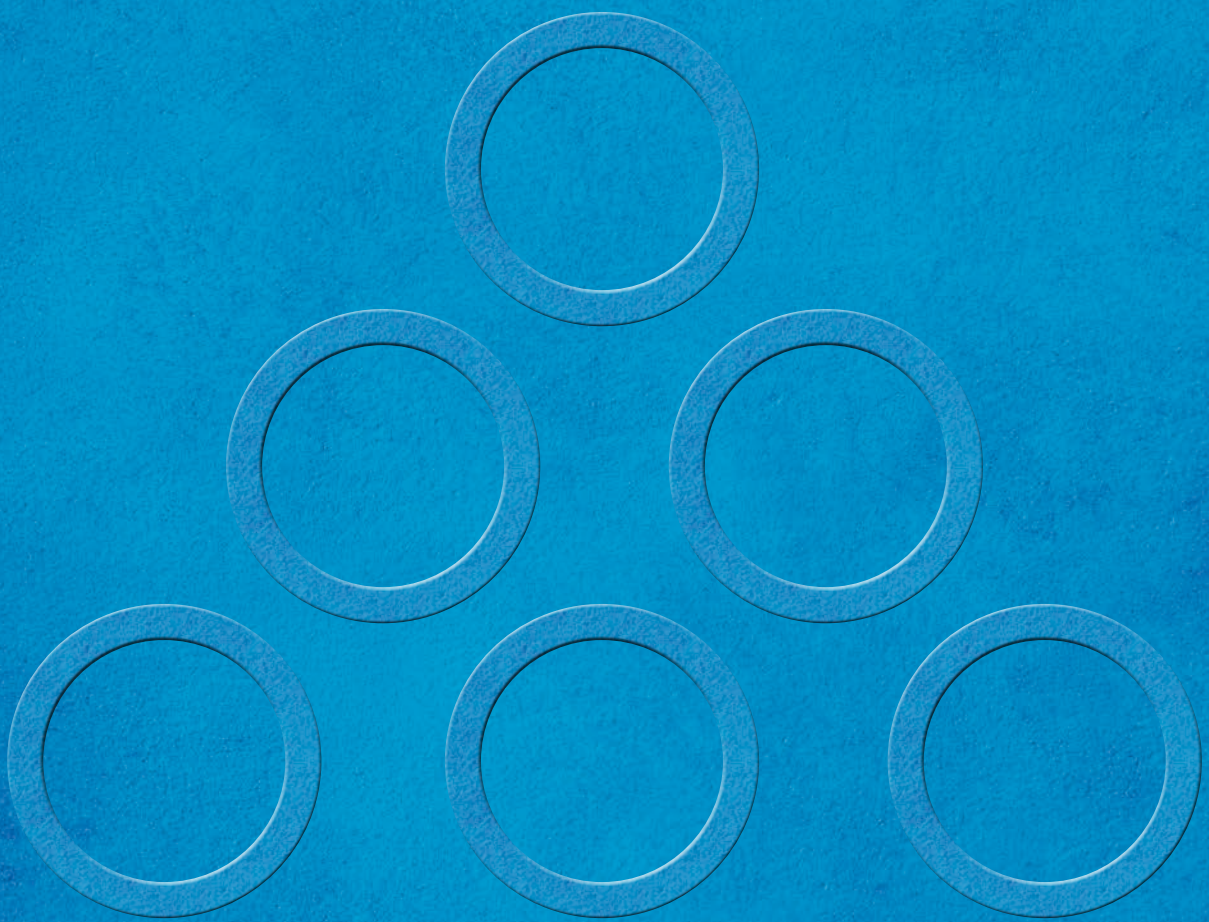
PRODUCTS
2021/2022



KETTENBACH DENTAL
Simply intelligent



KETTENBACH DENTAL
Simply intelligent

CONTENTS

SOOO INSPIRING

WITH KETTENBACH DENTAL

KETTENBACH DENTAL
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CAN THIS BE DONE EVEN MORE INTELLIGENT?

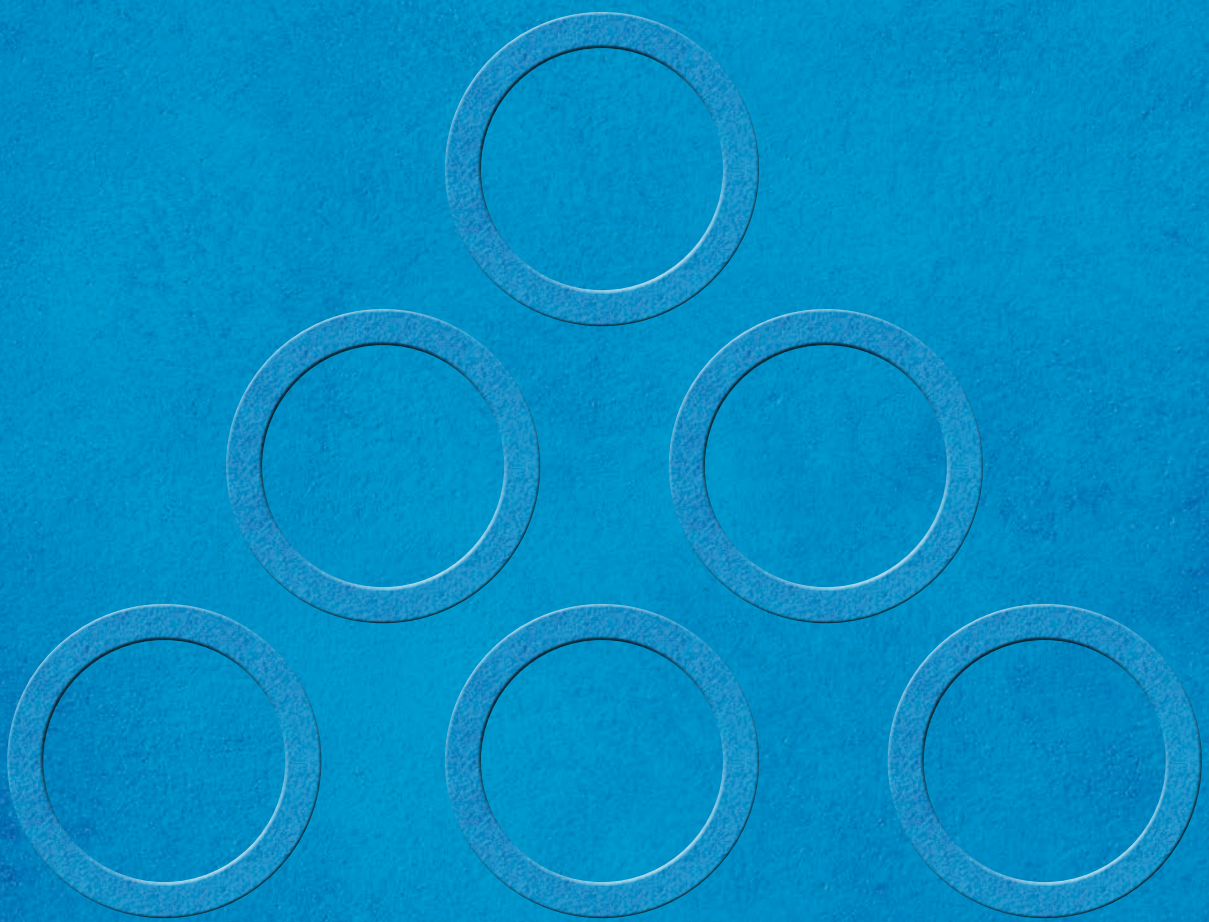
Our researchers and developers at Kettenbach Dental will not rest until the outcome is as perfect as your aspiration.

This has been driving us for over 75 years to produce exceptional innovations such as Panasil®, Identium®, Futar®, and Visalys®.

We want to simplify your life with product innovations “Made in Germany” – Simply intelligent!

Kettenbach Dental

KETTENBACHDENTAL
Simply intelligent



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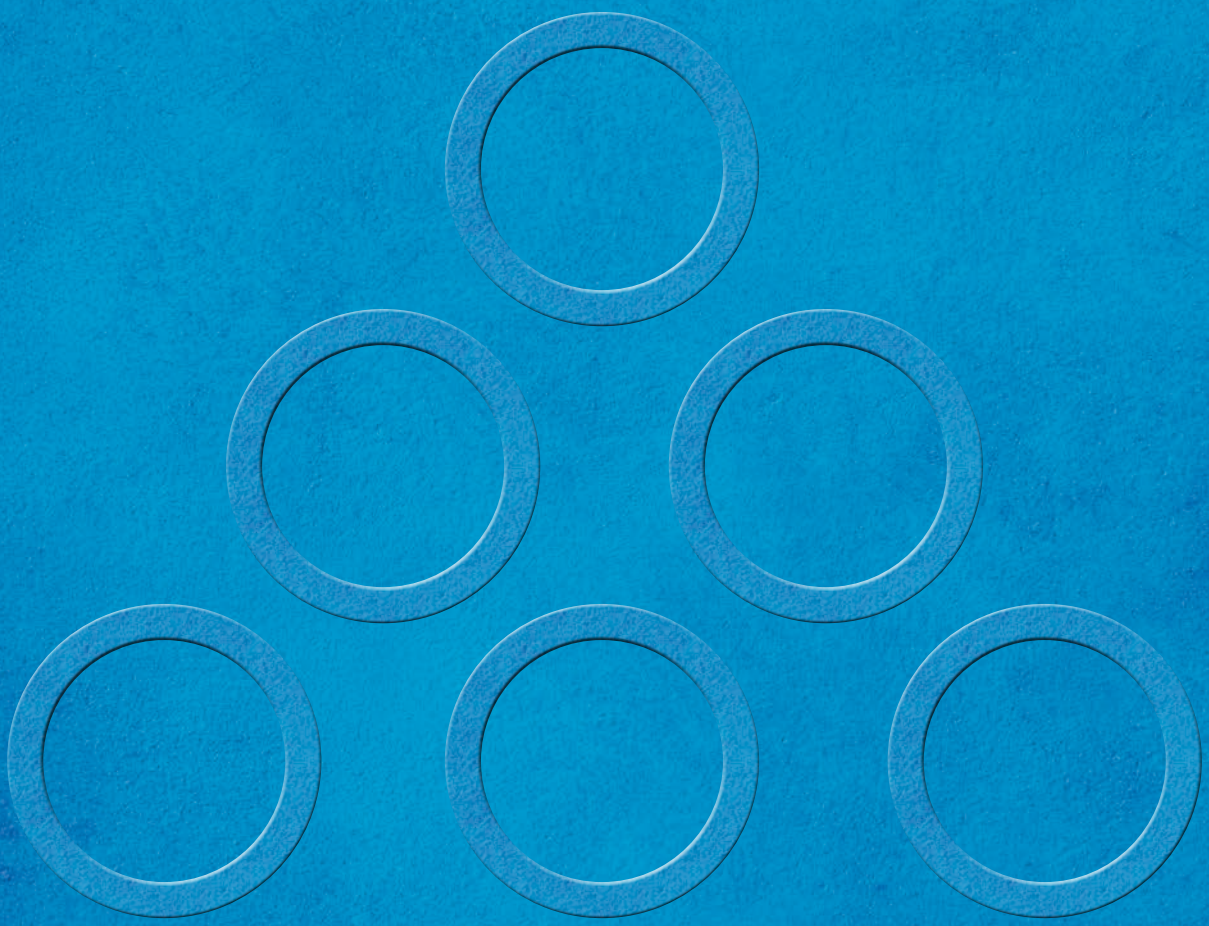
WE HAVE BEEN THINKING ABOUT PROGRESS FOR MORE THAN 75 YEARS. WITH EVERY SINGLE ONE OF OUR INNOVATIONS.

2021	Change of the primary packaging to a new 50 mL cartridge system which allows to use the impression materials Futar®, Silginat®, Panasil® and Identium® even more economical and effective.
2019	Introduction of Visalys® CemCore, the 2-in-1 composite: the dual-curing, adhesive material can be used for both cementation and core build-up, providing an optimized adhesive bond while also having outstanding stability.
2016	Introduction of Futar® Cut & Trim Fast, the latest bite registration material from the successful Futar® family that ensures even more efficient workflows in your practice.
2015	Introduction of Visalys® Core, the first core build-up material with the unique Active-Connect-Technology for a reliable adhesive bond with single-step and multi-step adhesives.
2012	Introduction of Visalys® Temp which sets the new benchmark for materials for temporary crowns and bridges.
2009	Introduction of Identium®. A new impression material that revolutionizes the one-step impression technique: Vinylsiloxanether®.
2008	Introduction of Silginat®, a new addition-curing silicone specifically for alginate indications.
2006	Introduction of Panasil® initial contact, the first A-silicone with very high hydrophilicity.
2002	Introduction of Panasil® binetics Putty.
1998	Launch of Mucopren® Soft, permanently soft relining material.
1994	Introduction of a new bite registration material based on silicone that subsequently achieves a high market position worldwide: Futar®.
1982	Market launch of Panasil®, a new class of impression material based on addition-curing silicones.
1955	Introduction of Lastic® 55, the first impression silicone in the world.
1944	Founding of Kettenbach Dental by August Kettenbach in Wissenbach on 2 May.



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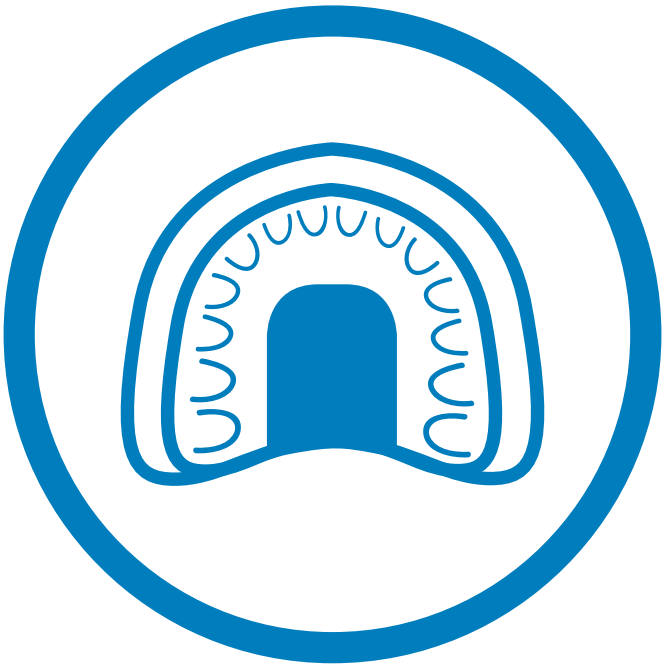
IMPRESSION MATERIALS



SOOO EFFICIENT

IS SILGINAT®

KETTENBACH DENTAL
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SILGINAT®, SILGINAT® STRAWBERRY

Silginat® is a medium-viscosity, elastomeric A-silicone available in a large 5:1 cartridge and in the new 50 mL cartridge was specifically developed for alginate applications (such as anatomical impressions).

Stable in long-term storage and suitable for multiple pouring

- Multiple impressions created for a situation is no longer necessary

High precision thanks to the advantages of an A-silicone

- Alginate-like consistency and low breaking strength
- The material is thixotropic but still flows
- It is dimensionally stable with high resilience
- Scannable

Standardized, hygienic processes

- Clean, simple and safe application with the 5:1 jumbo cartridge as well as with the new 50 mL cartridge system for reproducible results in terms of a quality management system

Modern setting characteristics

- Short intraoral setting time (90 seconds) for rapid workflows
- The anatomical impression is prepared in just 3 minutes
- Shore hardness A 45 for easy releasing

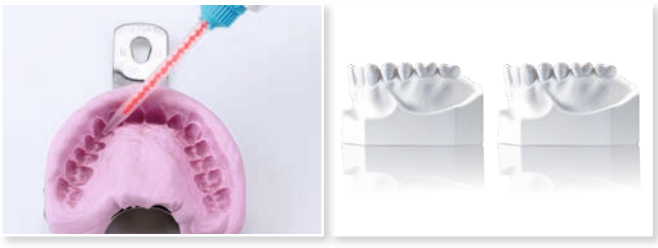
Economical and safe – the new 50 mL cartridge system

- Economical: 20 % less residue compared to the previous green mixer (Ø 6.5 mm) and no material waste before the first application
- Intuitive: effortless and simple handling without any training

Silginat® I Silginat® Strawberry medium viscosity

- ⊕ Anatomical impressions
- ⊕ Preparing temporary crowns and bridges
- ⊕ Opposing jaw impressions
- ⊕ Orthodontic tasks
- ⊕ Models for case studies
- ⊕ Preparation of models for constructing splints
- ⊕ Construction of simple removable prosthetic restorations

⊕ Highly recommended
⊕ Recommended



Partial impression trays: Multi Trays p. 46
Mixing tips, blue p. 51
Dynamic mixers p. 51
Applyfix 4 dispensing gun p. 52
Sympress dispenser p. 53

Silginat®	760 mL **Refill pack** 5:1 2 x 380 mL cartridges	300 mL **Normal pack** 1:1 6 x 50 mL cartridges, 6 mixing tips	1200 mL **Bulk pack** 1:1 24 x 50 mL cartridges
Silginat®	REF 14713	REF 1384611	REF 1384711
Silginat® **Strawberry**	REF 14715	REF 1382611	REF 1382711

Not available in all markets.

SOOO COMFORTABLE IS IDENTIUM®

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IDENTIUM®

Identium® combines the benefits of two established impression materials (A-silicone and polyether) working in perfect harmony. The innovative material class Vinylsiloxanether® is available in high, medium, and low viscosity with normal and fast setting variants for monophase and double-mix impressions. This enables all essential impression techniques to be covered with a single material.

Double-mix impressions

Tray material	Mixing	Working time at 23 °C	Intraoral working time	Intraoral setting time	Total setting time*	Page
Identium® Heavy		2:00 min.	–	2:30 min.	4:30 min.	15
Identium® Heavy Fast		1:15 min.	–	2:15 min.	3:30 min.	15
Identium® Medium		2:00 min.	1:20 min.	2:30 min.	4:30 min.	14
Identium® Medium Fast		1:15 min.	0:40 min.	2:15 min.	3:30 min.	14
Correction material (Light body)						
Identium® Light		2:00 min.	1:20 min.	2:30 min.	4:30 min.	16
Identium® Light Fast		1:15 min.	0:40 min.	2:15 min.	3:30 min.	16

* Total setting time (removal from the mouth) from the start of the mixing.

Monophase, fixation and pick-up impressions

Tray material	Mixing	Working time at 23 °C	Intraoral working time	Intraoral setting time	Total setting time*	Page
Identium® Medium		2:00 min.	1:20 min.	2:30 min.	4:30 min.	14
Identium® Medium Fast		1:15 min.	0:40 min.	2:15 min.	3:30 min.	14

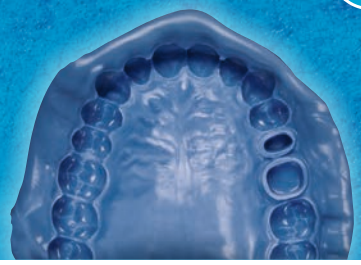
* Total setting time (removal from the mouth) from the start of the mixing.

Functional impressions

Tray material	Mixing	Working time at 23 °C	Intraoral working time	Intraoral setting time	Total setting time*	Page
Identium® Medium		2:00 min.	1:20 min.	2:30 min.	4:30 min.	14

* Total setting time (removal from the mouth) from the start of the mixing.

IDENTIUM® MEDIUM



Identium® Medium is a medium-viscosity precision impression material made of Vinylsiloxanether® for monophase impressions. Thanks to its high final hardness it is particularly well suited to implant impressions.

Greatest precision

- Perfect flow even with residual moisture enables the preparation margins to be reliably determined.
- The short intraoral setting time means there is less chance of deformation during the setting phase.

Secure retention

- The high final hardness (Shore A 60) ensures precise reproduction and secure retention of the implant posts and primary crowns.

More comfortable for user and patient

- Easy removal from the mouth thanks to high elasticity
- Low risk of breakage in model fabrication
- Neutral taste and smell
- Short intraoral setting time
- Considerably reduced gag reflex and movement

Time saving

- After just a total of 3 minutes and 30 seconds, the impression can be removed from the patient's mouth (Identium® Medium Fast).

Identium® Medium medium viscosity

- ⊕ Monophase impressions
- ⊕ Fixation impressions
- ⊕ Functional impressions
- ⊕ Pick-up impressions
- ⊕ Double-mix impressions
- ⊕ Reline impressions

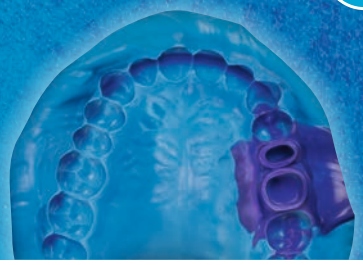
⊕ Highly recommended
⊕ Recommended

Identium® Adhesive p. 50
Dynamic mixers p. 51
Sympress dispenser p. 53

Identium®	380 mL **Intro pack** 5:1 380 mL cartridge, 10 dynamic mixers, 10 mL adhesive, 1 application syringe	760 mL **Refill pack** 5:1 2 × 380 mL cartridges
Medium	REF 14716	REF 14717
Medium **Fast**	–	REF 14719

Not available in all markets.

IDENTIUM® HEAVY



Identium® Heavy is a high-viscosity monophase precision impression material made of Vinylsiloxanether® that delivers particularly good results in the double-mix technique thanks to the optimal pressure build-up when combined with Identium® Light.

Greatest precision

- Perfect flow even with residual moisture enables the preparation margins to be reliably determined.
- The short intraoral setting time means there is less chance of deformation during the setting phase.

More comfortable for user and patient

- Easy removal from the mouth thanks to high elasticity
- Low risk of breakage in model fabrication
- Neutral taste and smell
- Short intraoral setting time
- Considerably reduced gag reflex and movement

Time saving

- After just a total of 3 minutes and 30 seconds, the impression can be removed from the patient's mouth (Identium® Heavy Fast).

Identium® Heavy high viscosity

- ⊕ Double-mix impressions
- ⊕ Fixation impressions
- ⊕ Functional impressions
- ⊕ Pick-up impressions

⊕ Highly recommended
⊕ Recommended

Identium® Adhesive p. 50
Dynamic mixers p. 51
Sympress dispenser p. 53

Identium®	380 mL **Intro pack** 5:1 380 mL cartridge, 10 dynamic mixers, 10 mL adhesive, 50 mL Light body, 8 red mixing tips, 8 transparent intraoral tips	760 mL **Refill pack** 5:1 2 × 380 mL cartridges
Heavy	REF 1472411	REF 14725
Heavy **Fast**	–	REF 14727

Not available in all markets.

IDENTIUM® LIGHT

Identium® Light is a low-viscosity precision impression material made of Vinylsiloxanether® that produces incredibly detailed impressions thanks to its high flowability even into the narrowest of sulci and even in extreme situations thanks to its high hydrophilicity.

Greatest precision

- Perfect flow even with residual moisture enables the preparation margins to be reliably determined.
- The narrowest of sulcus gaps are also precisely recorded.
- The short intraoral setting time means there is less chance of deformation during the setting phase.

More comfortable for user and patient

- The extra-long intraoral working time of 80 seconds (Identium® Light) means the material can be comfortably applied even with extensive prosthetic restorations.
- Neutral taste and smell
- Short intraoral setting time

Time saving

- After just a total of 3 minutes and 30 seconds, the impression can be removed from the patient's mouth (Identium® Light Fast).

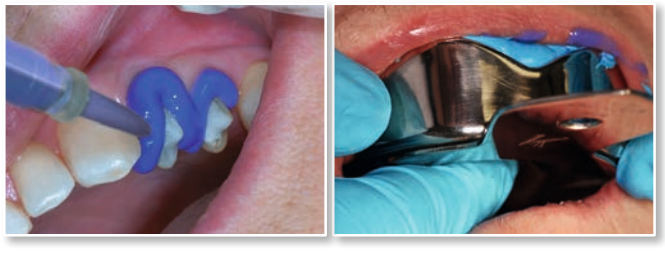
Economical and safe – the new 50 mL cartridge system

- Economical: no material waste before the first application
- Intuitive: effortless and simple handling without any training

Identium® Light low viscosity

- ⊕ Double-mix impressions
- ⊕ Reline impressions

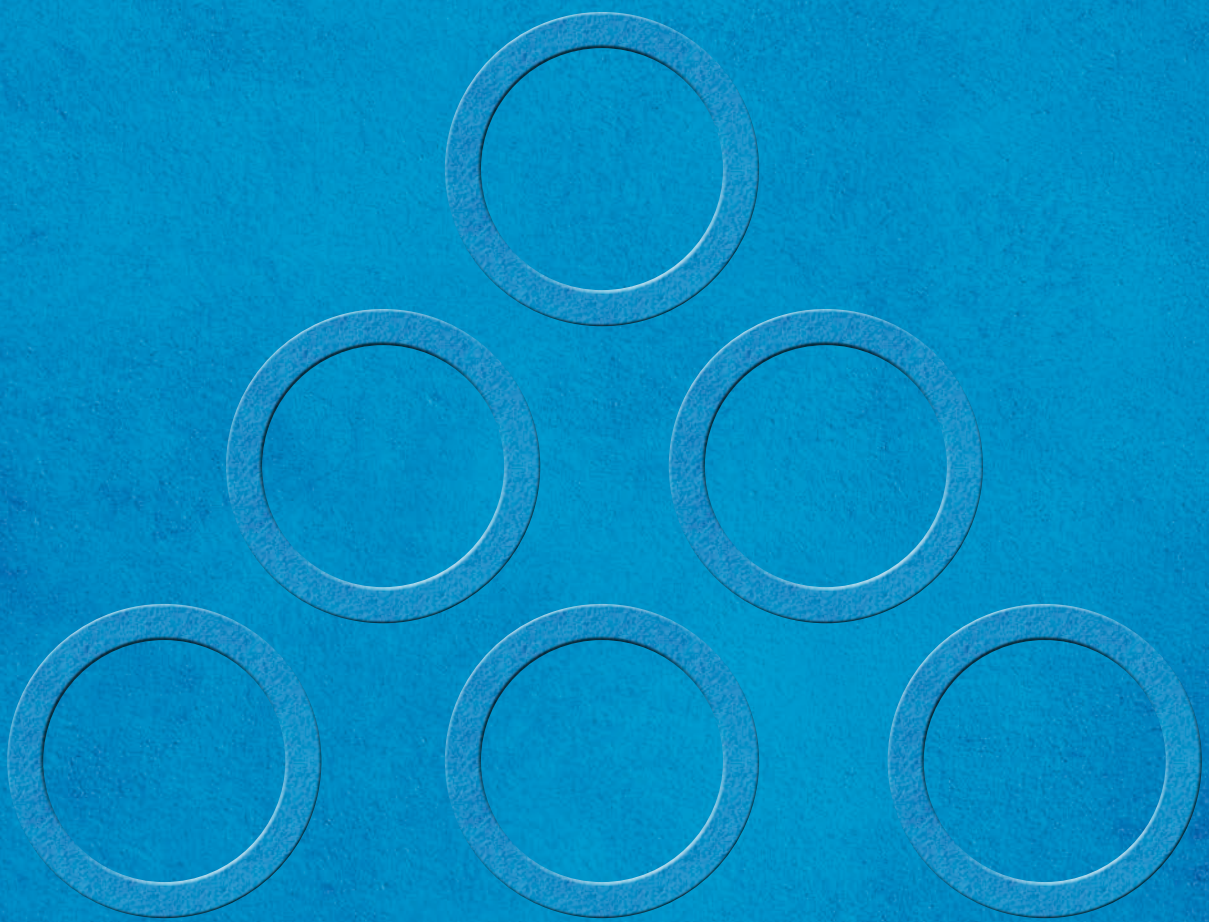
⊕ Highly recommended
⊕ Recommended



Identium® tray materials p. 14-15
Mixing tips, red p. 51
Applyfix 4 dispensing gun p. 52

Identium®	100 mL Normal pack 1:1 2 × 50 mL cartridges, 8 red mixing tips
Light	REF 1370111
Light **Fast**	REF 1371111

Not available in all markets.



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SOOO PRECISE
IS PANASIL®
KETTENBACH DENTAL
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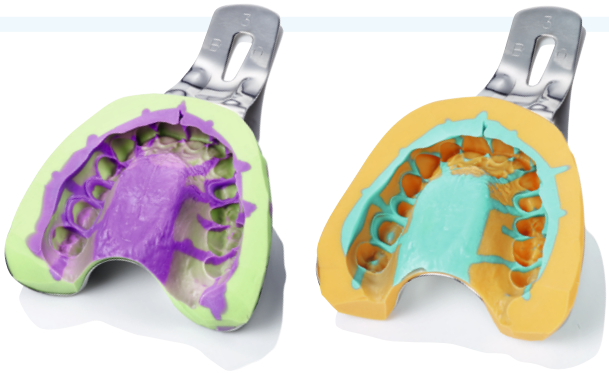
PANASIL®

Precise with no compromises, that's what **Panasil®** stands for. The range includes the right product for all impression techniques and indications. Thanks to its impressive product properties and coordinated product combinations, impressions can even be taken in moist environments and still deliver exceptionally precise results. The Panasil® family is available in low, medium, and high viscosity precision impression materials as well as a kneadable material all based on A-silicone.

Two-step impressions

Tray material	Color	Mixing	Shore Hardness	Working time at 23 °C	Working time intraoral	Intraoral setting time	Total setting time*	Page
Panasil® binetics Putty Fast			A 63	1:30 min.	–	2:30 min.	4:00 min.	21
Panasil® tray Fast Heavy			A 62	1:20 min.	–	2:00 min.	3:20 min.	23
Panasil® tray Fast Heavy			A 62	1:00 min.	–	2:00 min.	3:00 min.	23
Panasil® Putty Fast			A 66	1:30 min.	–	2:00 min.	3:30 min.	22
Panasil® Putty			A 66	2:00 min.	–	2:00 min.	4:00 min.	22
Correction material (Light body)								
Panasil® initial contact X-Light			A 46	1:30 min.	1:00 min.	2:30 min.	4:00 min.	25
Panasil® initial contact X-Light Fast			A 46	1:00 min.	0:30 min.	2:00 min.	3:00 min.	25
Panasil® contact plus X-Light			A 46	2:00 min.	1:00 min.	2:00 min.	> 2:00 min.	26

* Total setting time (removal from the mouth) from the start of the mixing.



PANASIL®

Double-mix impressions/ Sandwich impressions

Tray material	Color	Mixing	Shore Hardness	Working time at 23 °C	Working time intraoral	Intraoral setting time	Total setting time*	Page
Panasil® binetics Putty Soft			A 56	2:00 min.	–	3:00 min.	5:00 min.	21
Panasil® Putty Soft			A 60	2:00 min.	–	2:00 min.	4:00 min.	22
Panasil® tray Soft Heavy			A 55	2:00 min.	–	2:00 min.	4:00 min.	23
Panasil® tray Soft Heavy Fast			A 55	1:00 min.	–	2:00 min.	3:00 min.	23
Panasil® monophase Medium			A 60	2:00 min.	1:00 min.	2:00 min.	4:00 min.	24
Correction material (Light body)								
Panasil® initial contact Light			A 46	1:30 min.	1:00 min.	2:30 min.	4:00 min.	25
Panasil® initial contact Light Fast			A 46	1:00 min.	0:30 min.	2:00 min.	3:00 min.	25
Panasil® initial contact Regular			A 46	1:30 min.	1:00 min.	2:30 min.	4:00 min.	25
Panasil® contact two in one Light			A 46	2:00 min.	1:00 min.	2:00 min.	> 2:00 min.	26

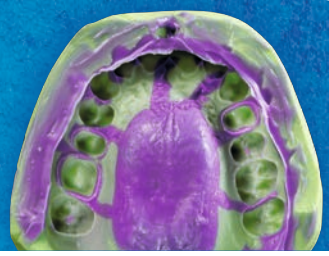
* Total setting time (removal from the mouth) from the start of the mixing.

Monophase, fixation and pick-up- and functional impressions

Tray material	Color	Mixing	Shore Hardness	Working time at 23 °C	Working time intraoral	Intraoral setting time	Total setting time*	Page
Panasil® monophase Medium			A 60	2:00 min.	1:00 min.	2:00 min.	4:00 min.	24

* Total setting time (removal from the mouth) from the start of the mixing.

PANASIL® BINETICS PUTTY FAST AND PUTTY SOFT



Panasil® binetics Putty is a genuinely kneadable putty based on A-silicone for precision impressions available in a 5:1 jumbo cartridge (380 mL).

Easy processing

- Good trimming properties thanks to the appropriate hardness
- Easy extrusion from the convenient 5:1 cartridge with all common mixing devices
- Consistent quality thanks to exact, reproducible dosage from the convenient jumbo cartridge

Security thanks to precision

- High viscosity for sufficient pressure build-up
- Easy removal from the mouth based on ideal elasticity
- Dimensionally stable elastic recovery
- Low salivation thanks to odor and taste neutrality

Always the right product

- Panasil® binetics Putty Fast – short intraoral setting time (end of setting 4 min.), high final hardness (Shore A 63)
- Panasil® binetics Putty Soft – reduced final hardness (Shore A 56) for even easier removal from the mouth

Panasil® binetics Putty Fast short intraoral setting time

- ⊕ Two-step impressions
- ⊕ Foil impressions

Panasil® binetics Putty Soft reduced final hardness

- ⊕ One-step putty-wash impressions
- ⊕ Functional margin contouring
- ⊕ Two-step impressions
- ⊕ Foil impressions

⊕ Highly recommended
⊕ Recommended

Panasil® light body materials p. 25-26
Panasil® Adhesive p. 50
Dynamic mixers p. 51
Sympress dispenser p. 53

Panasil®	380 mL **Intro pack** 5:1 380 mL cartridge, 10 dynamic mixers	760 mL **Refill pack** 5:1 2 × 380 mL cartridges
binetics Putty **Fast**	REF 14700	REF 14701
binetics Putty **Soft**	REF 14702	REF 14703

Not available in all markets.

PANASIL® PUTTY FAST, PUTTY SOFT AND PUTTY

Panasil® Putty is a classic kneadable putty based on A silicone for precision impressions. After over 35 years of steady development, the kneading putty is still a reliable quality material.

Easy processing

- Accustomed handling without additional equipment
- Smooth kneading without sticking

Precise and cost effective

- Hardness and elasticity in harmony for easy removal from the mouth
- Extra high dynamic pressure for optimal flow
- Dimensionally accurate
- Outstanding value for money

Always the right product

- Panasil® Putty Soft – reduced final hardness (Shore A 60) for even easier removal from the mouth
- Panasil® Putty Fast – fast setting (end of setting 3:30 min.)
- Panasil® Putty – final hardness Shore A 66 (end of setting 4:00 min.)

Panasil® Putty Fast short intraoral setting time

- ⊕ Two-step impressions
- ⊕ Foil impressions

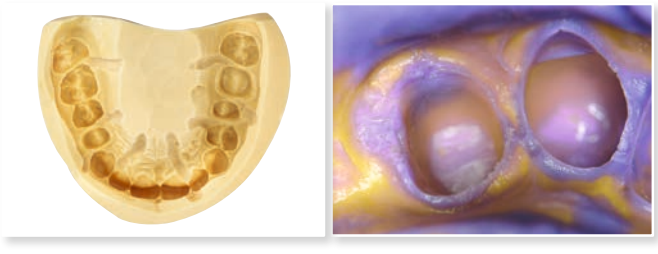
Panasil® Putty Soft reduced final hardness

- ⊕ One-step putty-wash impressions
- ⊕ Functional margin contouring
- ⊕ Two-step impressions
- ⊕ Foil impressions

Panasil® Putty high dynamic pressure

- ⊕ Two-step impressions
- ⊕ Foil impressions
- ⊕ One-step putty-wash impressions
- ⊕ Functional margin contouring

⊕ Highly recommended
⊕ Recommended



Panasil® light body materials p. 25-26
Panasil® Adhesive p. 50

Panasil®	400 mL **Intro pack** 1:1 200 mL catalyst paste, 200 mL base paste, 2 dispensing scoops	900 mL **Normal pack** 1:1 1 × 450 mL catalyst paste, 1 × 450 mL base paste, 2 dispensing scoops	3600 mL **Economy pack** 1:1 4 × 450 mL catalyst paste, 4 × 450 mL base paste, 2 dispensing scoops
Putty **Fast**	REF 11140	REF 11141	REF 11143
Putty **Soft**	REF 11120	REF 11121	REF 11123
Putty	–	REF 11101	REF 11103

Not available in all markets.

PANASIL® TRAY FAST HEAVY AND SOFT HEAVY

Panasil® tray is a high-viscosity, stiff Heavy body based on A-silicone for precision impressions available in the 5:1 jumbo cartridge and in the new 50 mL cartridge.

Easy processing

- Consistent quality thanks to exact, reproducible dosage from the convenient jumbo cartridge

Security thanks to precision

- High dynamic pressure
- Dimensionally stable elastic recovery
- Good trimming properties of the tray Fast Heavy material, so it is also suitable for two-step impressions

Always the right product

- Panasil® tray Fast Heavy – short intraoral setting time (end of setting 3:20 min.), high final hardness (Shore A 62)
- Panasil® tray Soft Heavy – reduced final hardness (Shore A 55) for even easier removal from the mouth

Economical and safe – the new 50 mL cartridge system

- Economical: no material waste before the first application
- Intuitive: simple handling without any training

Panasil® tray Fast Heavy short intraoral setting time

- ⊕ Two-step impressions
- ⊕ Double-mix impressions

Panasil® tray Soft Heavy reduced final hardness

- ⊕ Double-mix impressions
- ⊕ Functional impressions

⊕ Highly recommended
⊕ Recommended

Panasil®	380 mL Intro pack 5:1 380 mL cartridges, 10 dynamic mixers	760 mL Refill pack 5:1 2 × 380 mL cartridges	100 mL Normal pack 1:1 2 x 50 mL cartridges, 6 blue mixing tips
tray **Fast Heavy**	REF 14704	REF 14705	REF 1355111
tray **Soft Heavy**	REF 14706	REF 14707	REF 1354111
tray **Soft Heavy Fast**	–	–	REF 1356111

Not available in all markets.

PANASIL® MONOPHASE MEDIUM

Panasil® monophase Medium is a medium-viscosity monophase impression material based on A silicone for precision impressions. It is available in the convenient 5:1 Jumbo cartridge (380 mL) and in the new 50 mL cartridge and is characterized by a particularly high initial hydrophilicity for precision even in extreme situations.

Precise impressions

- Strong thixotropy combined with exceptional hydrophilicity enables first-class application.
- Optimal flow, which also ensures reliability and precision in difficult oral situations.

Rapidly fixed, reliably transferred

- High final hardness (Shore A 60) allows optimal retention and thus perfect and precise reproduction of primary parts.
- Practical processing and setting time (each 2:00 min.) guarantees you reliability.

Universally applicable

- Just as suitable for preparing crowns/bridges, inlays/onlays, and veneers as for fixation impressions.

Patient-friendly

- The odorless and tasteless material with a short intraoral setting time contributes to lower patient stress.

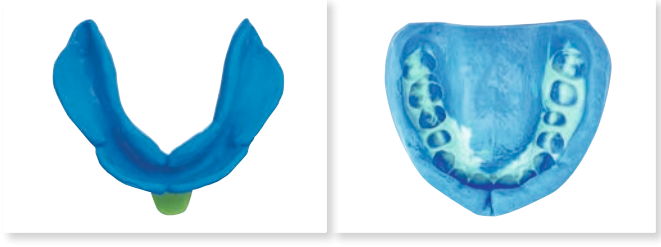
Economical and safe – the new 50 mL cartridge system

- Economical: no material waste before the first application
- Intuitive: simple handling without any training

Panasil® monophase Medium medium viscosity

- ⊕ Monophase impressions
- ⊕ Fixation impressions
- ⊕ Functional impressions
- ⊕ Pick-up impressions
- ⊕ Double-mix impressions
- ⊕ Reline impressions

⊕ Highly recommended
⊕ Recommended



Panasil® Adhesive p. 50
Mixing tips, blue p. 51
Dynamic mixers p. 51
Applyfix 4 dispensing gun p. 52
Sympress dispenser p. 53

760 mL **Refill pack** 5:1
2 × 380 mL cartridges

REF 14709

100 mL **Normal pack** 1:1
2 × 50 mL cartridges, 6 blue mixing tips

REF 1350111

Not available in all markets.

PANASIL® INITIAL CONTACT X-LIGHT, LIGHT AND REGULAR

Panasil® initial contact is a Light body based on A silicone with a particularly high initial hydrophilicity for precision impressions – it is ideally matched to the Panasil® tray materials. The three material variants (X-Light - very low viscosity, Light - low viscosity and Regular - medium viscosity) are each available as fast-setting Fast variants – simply always the right product.

Precision

- Optimal flow based on exceptional initial hydrophilicity ensures reliability and precision even in difficult oral situations, e.g. problematic hemostasis.
- Dimensionally stable elastic recovery

Convenient and simple processing and working

- Fast and easy to apply using all conventional dispensing guns such as Applyfix 4 for impression materials
- Outstanding flowability and highly toxicotropic: flows into narrow gaps and does not drip from the tooth

Economical and safe – the new 50 mL cartridge system

- Economical: no material waste before the first application
- Intuitive: simple handling without any training

Panasil® initial contact X-Light very low viscosity, purple

- ⊕ Two-step impressions
- ⊕ Reline impressions
- ⊕ Double-mix impressions
- ⊕ One-step putty-wash impressions

Panasil® initial contact Light low viscosity, light green

- ⊕ Double-mix impressions
- ⊕ Reline impressions
- ⊕ Foil impressions
- ⊕ Two-step impressions
- ⊕ One-step putty-wash impressions

Panasil® initial contact Regular medium viscosity, gray

- ⊕ One-step putty-wash impressions
- ⊕ Foil impressions
- ⊕ Double-mix impressions
- ⊕ Reline impressions

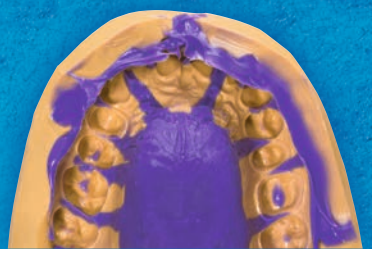
⊕ Highly recommended
⊕ Recommended

Panasil® tray materials p. 21-23
Mixing tips, red p. 51
Mixing tips, blue p. 51
Applyfix 4 dispensing gun p. 52

Panasil®	100 mL **Normal pack** 1:1 2 × 50 mL cartridges, 8 red mixing tips (Regular: 6 blue mixing tips)	500 mL **Bonus pack** 1:1 10 × 50 mL cartridges, 40 red mixing tips
initial contact **X-Light**	REF 1340111	REF 2830011
initial contact **X-Light Fast**	REF 1346111	–
initial contact **Light**	REF 1341111	REF 2831011
initial contact **Light Fast**	REF 1347111	–
initial contact **Regular**	REF 1343111	–

Not available in all markets.

PANASIL® CONTACT PLUS X-LIGHT, TWO IN ONE LIGHT



Panasil® contact is a Light body based on A silicone for precision impressions. The setting characteristics of both products are impressive: end of setting can be achieved after only 2 minutes.

Flexible setting characteristics

- Flexible working time up to 2 minutes
- Always the same short intraoral setting time of 2 minutes
- < 2 min. working time
  + 2 min. intraoral setting time

  > 2 min. end of setting

Convenient and simple working

- Fast and easy to apply using all conventional dispensing guns such as Applyfix 4 for impression materials
- Low viscosity and stable at the same time
- Dimensionally stable elastic recovery

Economical and safe – the new 50 mL cartridge system

- Economical: no material waste before the first application
- Intuitive: simple handling without any training

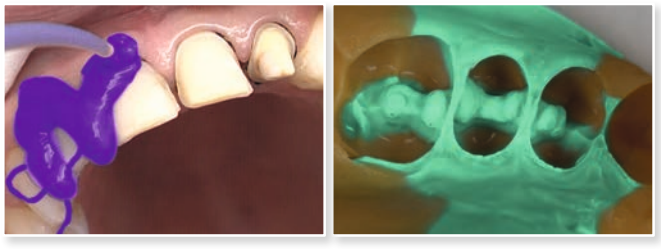
Panasil® contact plus X-Light very low viscosity, purple

- ⊕ Two-step impressions
- ⊕ Reline impressions
- ⊕ Double-mix impressions
- ⊕ One-step putty-wash impressions

Panasil® contact two in one Light low viscosity, light green

- ⊕ Double-mix impressions
- ⊕ One-step putty-wash impressions
- ⊕ Foil impressions
- ⊕ Reline impressions

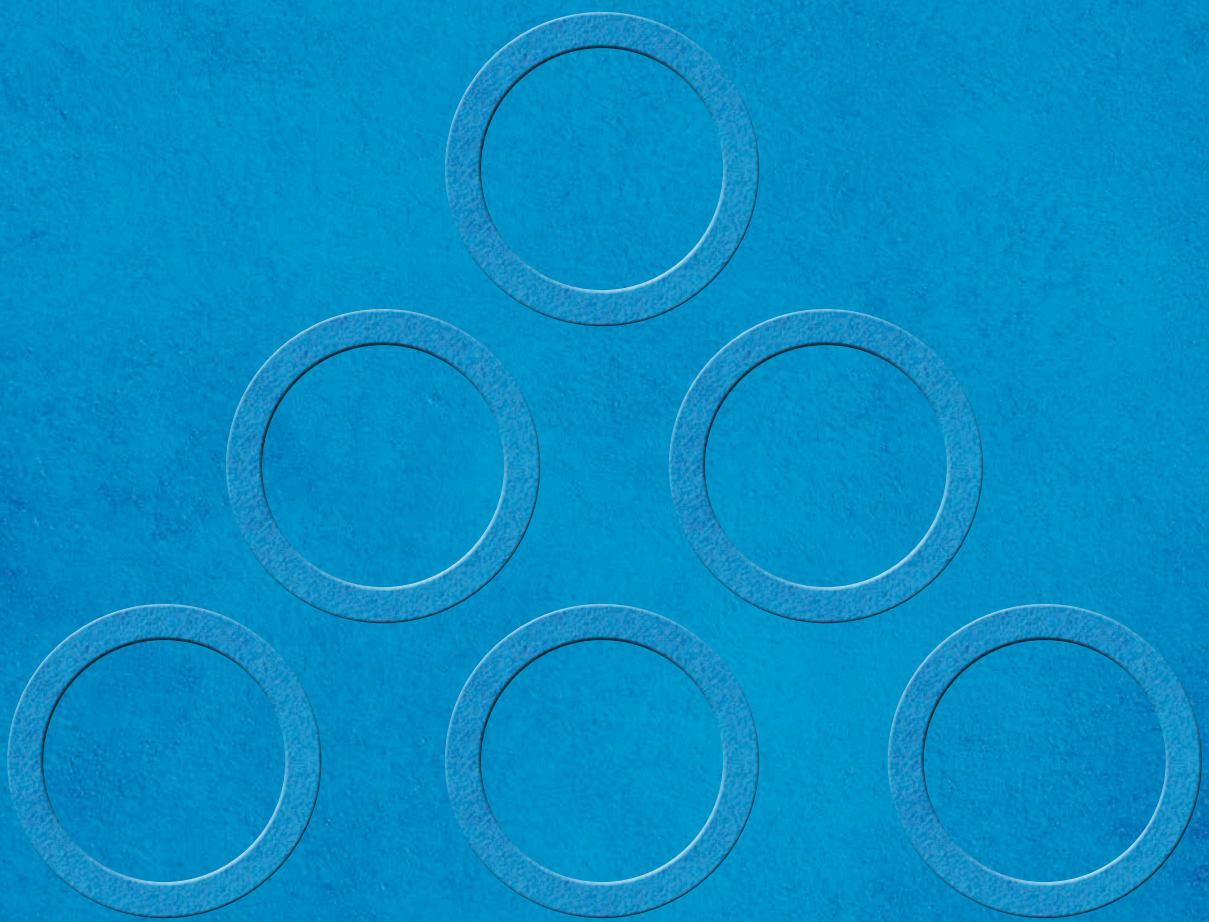
⊕ Highly recommended
⊕ Recommended



Panasil® tray materials p. 21-23
Mixing tips, red p. 51
Mixing tips, blue p. 51
Applyfix 4 dispensing gun p. 52

Panasil®	100 mL Normal pack 1:1 2 × 50 mL cartridges, 8 red mixing tips	100 mL Normal pack 1:1 2 × 50 mL cartridges, 6 blue mixing tips
contact plus **X-Light**	REF 1189211	–
contact two in one **Light**	–	REF 1178111

Not available in all markets.



KETTENBACH DENTAL
Simply intelligent


SOOO SUPER
WITH FUTAR®
KETTENBACHDENTAL
Simply intelligent

FUTAR®

The **Futar®** family of products includes six syringeable elastomeric materials for bite registration to create precise impressions of the occlusal situation.

All the materials are A-silicones and are impressive thanks to their high final hardness and high level of comfort. The Futar® family has a bite registration material suitable for every requirement.

Dental arch

Bite registration material	Mixing	Working time at 23 °C	Intraoral setting time	Total setting time*	Special feature	Page
Futar®		0:30 min.	1:30 min.	2:00 min.	Hard material	30
Futar® D		0:30 min.	1:30 min.	2:00 min.	Especially hard material	31
Futar® D Slow		1:30 min.	3:00 min.	4:30 min.	Especially hard material with a long processing time	33

* Total setting time (removal from the mouth) from the start of the mixing.

Segment

Bite registration material	Mixing	Working time at 23 °C	Intraoral setting time	Total setting time*	Special feature	Page
Futar® Fast		0:15 min.	0:45 min.	1:00 min.	Hard material, rapid setting	30
Futar® D Fast		0:15 min.	0:45 min.	1:00 min.	Especially hard material, rapid setting	31
Futar® Cut & Trim Fast		0:15 min.	0:45 min.	1:00 min.	Especially hard, flexible processing, scannable	32

* Total setting time (removal from the mouth) from the start of the mixing.

FUTAR®
FUTAR® FAST

Futar® is a syringeable elastomeric A-silicone for bite registration with high final hardness.

Precision

- The high final hardness (Shore A 90) prevents springing when aligning the models in the laboratory

Easy to work with

- Easy to handle and easy to process with a scalpel

Stable

- Highly thixotropic so it does not flow away into the interdental spaces but remains stable on the tooth, easy to remove from the mouth

Modern setting characteristics

- Regular set: comfortable processing time (30 seconds), short intraoral setting time (90 seconds) for ease of use
- Fast set: short processing time (15 seconds), extra short intraoral setting time (45 seconds): the registration is ready in just one minute

Economical and safe – the new 50 mL cartridge system

- Economical: 20 % less residue compared to the previous green mixer (Ø 6.5 mm)
- Intuitive: simple handling without any training

Futar® 30-second processing time

- ⊕ Bite registration (full dental arch)
- ⊕ Loading the bite fork
- ⊕ Registration (general)
- ⊕ Registration in orthodontics
- ⊕ Bite registration (segment)

Futar® Fast 15-second processing time

- ⊕ Bite registration (segment)
- ⊕ Loading the bite fork
- ⊕ Registration (general)
- ⊕ Registration in orthodontics
- ⊕ Bite registration (full dental arch)

⊕ Highly recommended
⊕ Recommended

Mixing tips, blue p. 51
Applyfix 4 dispensing gun p. 52

Futar®	100 mL **Normal pack** 1:1 2 × 50 mL cartridges, 6 blue mixing tips	500 mL **Bonus pack** 1:1 10 × 50 mL cartridges, 30 blue mixing tips
Futar®	REF 1191211	REF 2827711
Futar® **Fast**	REF 1192611	REF 2827611

Not available in all markets.

FUTAR® D
FUTAR® D FAST

Futar® D is a syringeable elastomeric A-silicone for bite registration with high final hardness.

Precision

- The extra high final hardness (Shore D 43) prevents springing when aligning the models in the laboratory.

Easy to work with

- Easy to handle and easy to mill

Stable

- Highly thixotropic so it does not flow away into the interdental spaces but remains stable on the tooth, easy to remove from the mouth

Modern setting characteristics

- Regular set: comfortable processing time (30 seconds), short intraoral setting time (90 seconds) for ease of use
- Fast set: short processing time (15 seconds), extra short intraoral setting time (45 seconds): the registration is ready in just one minute

Economical and safe – the new 50 mL cartridge system

- Economical: 20 % less residue compared to the previous green mixer (Ø 6.5 mm)
- Intuitive: simple handling without any training

Futar® D 30-second processing time

- ⊕ Bite registration (full dental arch)
- ⊕ Loading the bite fork
- ⊕ Registration (general)
- ⊕ Registration in orthodontics
- ⊕ Bite registration (segment)

Futar® D Fast 15-second processing time

- ⊕ Bite registration (segment)
- ⊕ Loading the bite fork
- ⊕ Registration (general)
- ⊕ Registration in orthodontics
- ⊕ Bite registration (full dental arch)

⊕ Highly recommended
⊕ Recommended

Mixing tips, blue  p. 51

Applyfix 4 dispensing gun p. 52

Futar® D	100 mL **Normal pack** 1:1 2 × 50 mL cartridges, 6 blue mixing tips	500 mL **Bonus pack** 1:1 10 × 50 mL cartridges, 30 blue mixing tips
Futar® D	REF 1193211	REF 2827811
Futar® D **Fast**	REF 1196111	REF 2827911

Not available in all markets.

FUTAR® CUT & TRIM FAST

Futar® Cut & Trim Fast is an extra hard, extra fast setting A-silicone for bite registration.

Precision

- The extra high final hardness (Shore D 35) prevents springing when aligning the models in the laboratory.

Flexible to work with

- Whether with a bur or a scalpel – Futar® Cut & Trim Fast is easy and simple to work with.
- Scannable for using with CAD/CAM

Saves time

- 15-second processing time for documenting the teeth with an extra fast setting time of 45 seconds: The bite registration is prepared in just one minute.

Convenient and safe – the new 50 ml cartridge system

- Thanks to the shorter mixing tip: closer to the dental arch and therefore even more precise application!
- Intuitive: simple handling without any training

Futar® Cut & Trim Fast 15-second processing time

- ⊕ Bite registration (segment)
- ⊕ Loading the bite fork
- ⊕ Scannable bite registration
- ⊕ Registration in orthodontics
- ⊕ Bite registration (full dental arch)

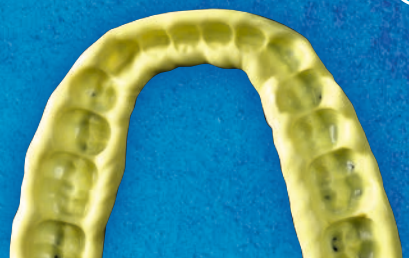
⊕ Highly recommended
⊕ Recommended

Mixing tips, red p. 51
Applyfix 4 dispensing gun p. 52

100 mL **Normal pack** 1:1	500 mL **Bonus pack** 1:1
2 × 50 mL cartridges, 8 red mixing tips	10 × 50 mL cartridges, 40 red mixing tips
Fast REF 1197511	REF 2827511

Not available in all markets.

FUTAR® D SLOW



Futar® D Slow is a syringeable elastomeric A-silicone for bite registration with an extra high final hardness and an extra long processing time.

Precision

- The extra high final hardness (Shore D 43) prevents springing when aligning the models in the laboratory

Easy to work with

- Easy to handle and easy to mill

Stable

- Highly thixotropic so it does not flow away into the interdental spaces but remains stable on the tooth

Wide range of possible uses

- With a 90-second processing time, Futar® D Slow ensures plenty of time for myocentric bite registration, custom margin contouring, for use as an insulating agent or fixation material combined with other A-silicones in implant dentistry or anywhere where a particularly hard A-silicone is used in the clinic or laboratory.

Economical and safe – the new 50 mL cartridge system

- Economical: 20 % less residue compared to the previous green mixer (Ø 6.5 mm)
- Intuitive: simple handling without any training

Now in NEW cartridge system!

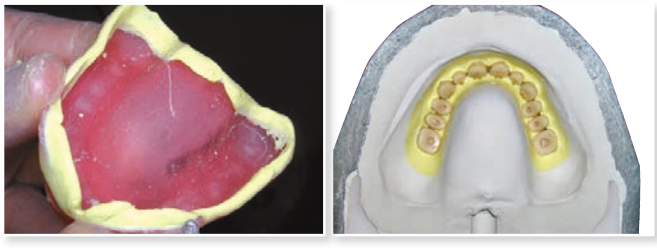
100 mL **Normal pack** 1:1
2 × 50 mL cartridges, 6 blue mixing tips

REF 1195111

Futar® D Slow 90-second processing time

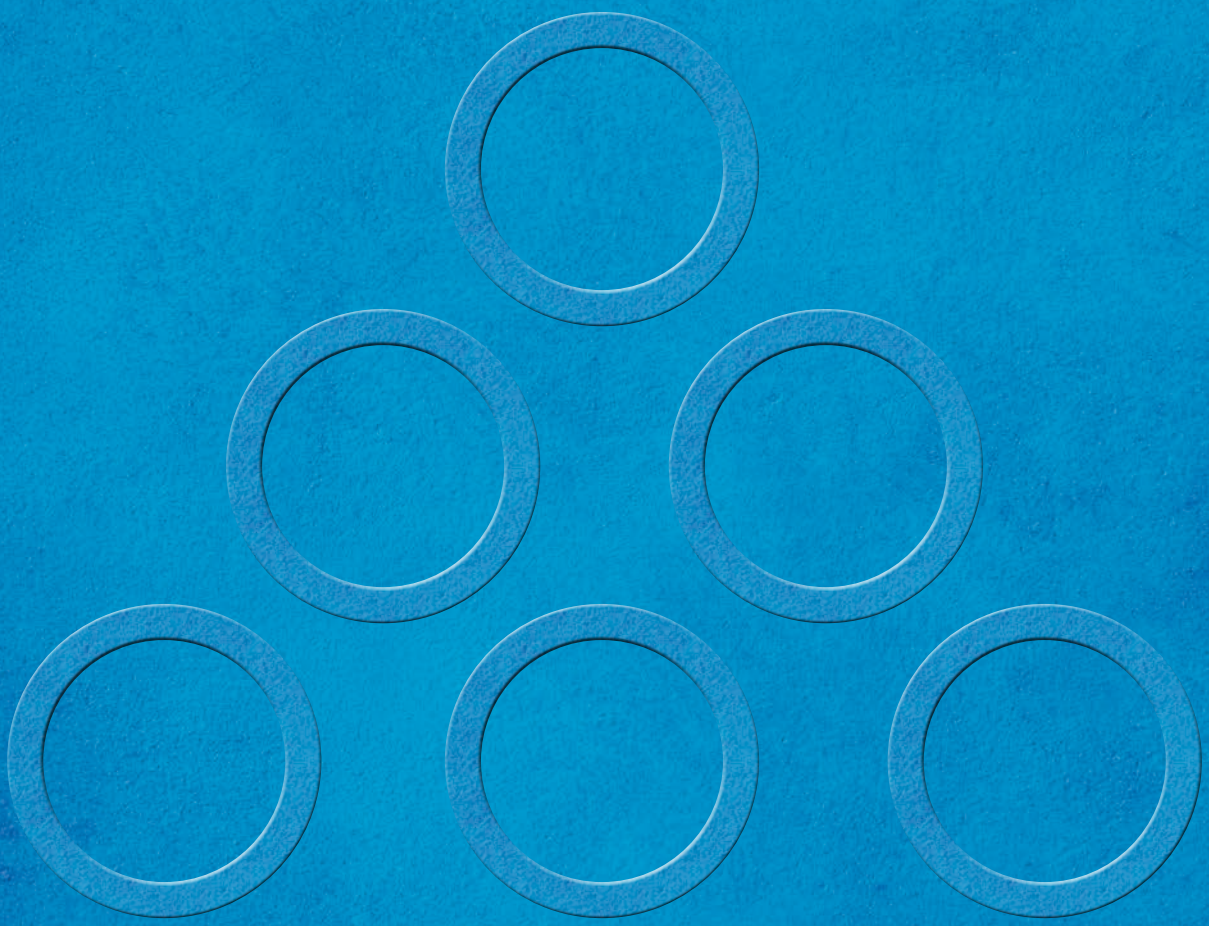
- ⊕ Bite registration (time consuming)
- ⊕ Myocentric bite registration
- ⊕ Functional margin contouring
- ⊕ Bite registration (full dental arch)
- ⊕ Registration (general)
- ⊕ Registration in orthodontics

⊕ Highly recommended
⊕ Recommended



Mixing tips, blue p. 51
Applyfix 4 dispensing gun p. 52

Not available in all markets.



KETTENBACH DENTAL
Simply intelligent

RESTORATION

SO UNBREAKABLE

IS **VISALYS®** TEMP

KETTENBACH DENTAL

Simply intelligent

VISALYS® TEMP

Visalys® Temp is a temporary crown and bridge material for exceptionally stable and fracture-resistant short- and long-term temporary restorations based on a multifunctional acrylic composite. Visalys® Temp is suitable for fabricating temporary crowns, partial crowns, bridges, inlays, onlays, and veneers.

Exceptionally stable and fracture resistant

- Particularly high values for impact strength, flexural strength, diametrical tensile strength, and elastic modulus
- Satisfied customers thanks to noticeably fewer fractures/repairs
- Can also be used for long-term temporary restorations (> 4 weeks).

Easy to use

- Saves valuable time: smooth surface and high luster even without polishing.
- Comfortable processing: minimal smear layer, precise milling, minimal dust

High aesthetics

- Tooth-like translucency and opalescence ensure optimal integration into the existing dentition thanks to the chameleon effect.
- Natural fluorescence; available in six shades
- Also suitable for very challenging anterior teeth temporary restorations

Visalys® Temp

- ⊕ 4-week temporary restoration
- ⊕ Long-term temporary restoration

⊕ Highly recommended
⊕ Recommended

Mixing tips, blue-orange p. 51
Applyfix 6 dispensing gun p. 52

Visalys® Temp	50 mL Normal pack 1:10 50 mL cartridge, 15 blue-orange mixing tips	250 mL Bonus pack 1:10 5 × 50 mL cartridges, 15 blue-orange mixing tips
Shade **A1**	REF 13780	–
Shade **A2**	REF 13781	REF 13794
Shade **A3**	REF 13782	REF 13795
Shade **A3.5**	REF 13790	–
Shade **B1**	REF 13784	–
Shade **BL**	REF 13788	–

Not available in all markets.

SOOO 2 IN 1

IS VISALYS® CEMCORE

KETTENBACH DENTAL

Simply intelligent

VISALYS® CEMCORE

Visalys® CemCore is a dual-curing, adhesive cementation and core build-up material. The unique Active-Connect-Technology (ACT) provides an optimized adhesive bond and at the same time Visalys® CemCore has outstanding stability thanks to the special network former, even without matrices.

2 in 1: 1 product, 2 indications

- For cementation of all restorations, even in the highly esthetic anterior region
- For core build-ups, also in difficult situations

Permanently strong adhesive bond and reliable core build-up

- Despite the hydrophobicity required for a core build-up material, the unique Active-Connect-Technology (ACT) with the integrated phase-transfer catalyst ensures a permanently strong adhesive bond.
- Special network formers provide Visalys® CemCore with high stability for core build-ups while at the same time very good flowability when positioning the restoration.

Effortless work

- Visalys® CemCore is dual-curing, ensuring reliable curing even in sites with no light access.
- Core build-ups are problem free, even without matrices.
- Flows during cementation to form a thin layer under the restoration and any excess can be easily removed thanks to the fine control of the initial light curing.
- Visalys® CemCore has a higher radiopacity than enamel and dentin and is thus easily visible.
- And of course, free of bisphenol A

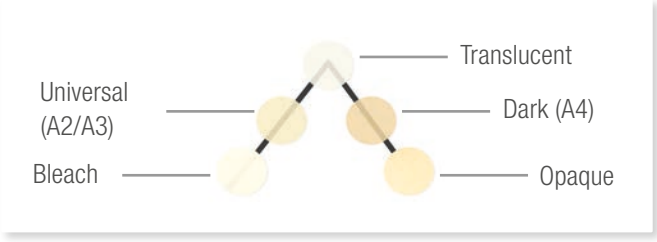
Visalys® CemCore

- Cementation
- Core build-up

Highly recommended
Recommended

100% BPA FREE Free of Bisphenol A

ACTIVE CONNECT TECHNOLOGY



Mixing tips, blue, blunt p. 51
Mixing tips, blue, tapered p. 51
Intraoral tips, transparent p. 51
Endo tips, transparent p. 51

Visalys® CemCore	Starter pack 4.5 g (2.5 mL) automix syringe, 2 mL Tooth Primer, 2 mL Restorative Primer, blue mixing tips, blunt/tapered, 5 units each, 3 intraoral tips, 2 endo tips	Normal pack 9 g (5 mL) automix syringe, blue mixing tips, blunt/tapered, 10 units each, 6 intraoral tips, 4 endo tips	Visalys® CemCore Try In Paste 1.4-mL-syringe, 5 application tips
Universal (A2/A3)	REF 13570	REF 13572	REF 13592
Opaque	–	REF 13573	REF 13593
Translucent	–	REF 13574	REF 13590
Bleach	–	REF 13575	REF 13591
Dark (A4)	–	REF 13576	REF 13594

Visalys® Tooth Primer
1 × 4-mL-bottle
REF 13580

Visalys® Restorative Primer
1 × 4-mL-bottle
REF 13581

Not available in all markets.

SOOO STABLE
IS VISALYS® CORE

KETTENBACH DENTAL
Simply intelligent

VISALYS® CORE

Visalys® Core is a dual-curing, radiopaque, fluoride-containing material for core build-up and cementing root posts with a unique Active-Connect-Technology (ACT).

Reliable adhesive bond for durable restorations

- The unique Active-Connect-Technology (ACT) provides a reliable adhesive bond even with light-curing single-step adhesives.
  Visalys® Core adheres exceptionally well to light-curing or dual-curing single-step or multi-step adhesives – you can still use your preferred adhesive.
- Superstructures with Visalys® Core are strong in compression and stable and form a reliable monoblock with root post and core build-up.

Success even in difficult situations

- Visalys® Core is dual-curing, ensuring that superstructures are solid even in sites with no light access.

Two indications, one material

- For core build-up and post cementation

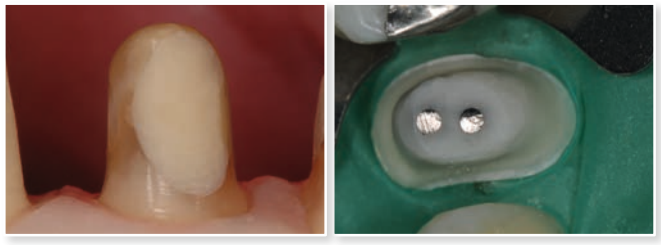
Makes work easier

- Visalys® Core can be easily applied directly into the cavity with minimal application force.
- Visalys® Core flows easily into the root canal but for core build-up still has excellent stability and can be easily modeled – also without matrices.
- Visalys® Core is precise and can be ground similar to dentin. Light curing in only 20 seconds.

Visalys® Core

- ⊕ Core build-up
- ⊕ Post cementation

⊕ Highly recommended
⊕ Recommended



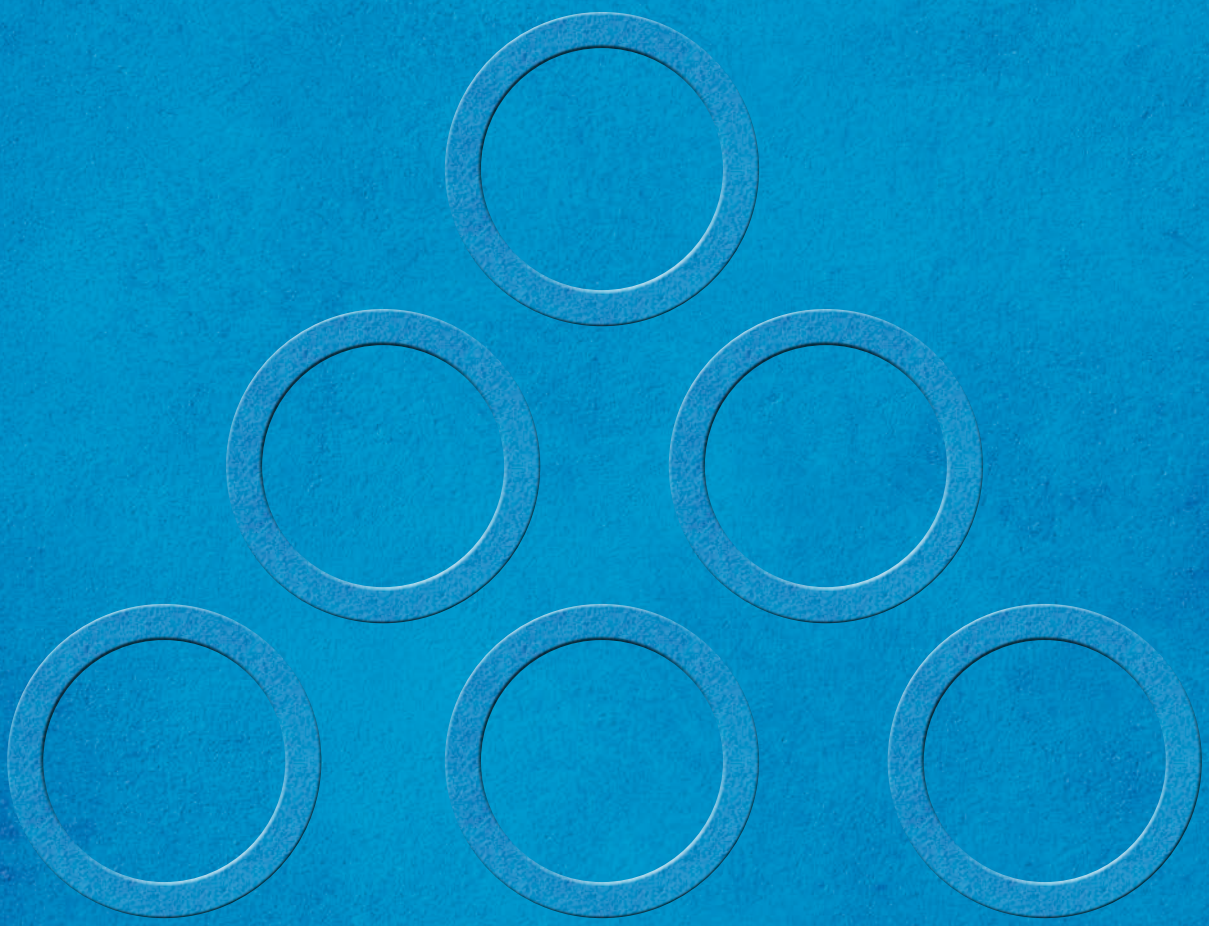
Mixing tips, brown p. 51
Mixing tips, yellow, short p. 51
Endo tips, transparent p. 51
Intraoral tips, transparent p. 51
Intraoral tips, yellow p. 51
Applyfix 8 dispensing gun p. 52

ACTIVE CONNECT TECHNOLOGY

100% BPA FREE Free of Bisphenol A

	Automix syringe		Cartridge
Visalys® Core	9 g (5 mL) **Intro pack** 1:1 1 × 9 g (5 mL) automix syringe, 10 brown mixing tips, 5 intraoral tips, 5 endo tips	18 g (10 mL) **Normal pack** 1:1 2 × 9 g (5 mL) automix syringe, 20 brown mixing tips 10 intraoral tips, 10 endo tips	45 g (25 mL) **Normal pack** 1:1 1 × 45 g (25 mL) cartridge, 20 yellow mixing tips, 20 intraoral tips
White	REF 13866	REF 13860	REF 13870
Dentin	REF 13865	REF 13861	REF 13871

Not available in all markets.



KETTENBACH DENTAL
Simply intelligent

OTHER PRODUCTS


S ADHERENT
IS MUCOPREN® SOFT
KETTENBACH DENTAL
Simply intelligent

OTHER PRODUCTS

MUCOPREN® SOFT

Mucopren® Soft is a permanently soft durable relining material for removable dentures based on vinyl polysiloxane.

Comfortable processing

- Can be used chairside and is applied in just a few minutes
- Can be easily processed with scalpel and bur

Very comfortable for patients

- The particularly smooth, hydrophobic silicone surface offers protection against microbial contamination*
- Permanently elastic

Durable

- Outstanding adhesion, does not detach from the prosthesis
- High tear resistance, long service life

Mucopren® Soft

- ⊕ Direct relining
- ⊕ Indirect relining

⊕ Highly recommended
⊕ Recommended

Mixing tips, green p. 51
Mixing tips, blue p. 51
Applyfix 4 dispensing gun p. 52

Mucopren® Soft		Silicone sealant	Adhesive
Base set 50 mL Mucopren Soft, 50 mL Mucopren silicone sealant, 10 mL Mucopren adhesive, 7 green mixing tips, 20 blue mixing tips, 1 brush holder, 20 single-use brushes, 1 steel bur, accessories	100 mL **Normal pack** 1:1 2 × 50 mL Mucopren Soft, 6 green mixing tips	50 mL **Normal pack** 1:1 1 × 50 mL Mucopren silicone sealant, 10 blue mixing tips	10 mL **Normal pack** 10 mL Mucopren® Adhesive
REF 28105	REF 15687	REF 15686	REF 14203

*Concluded from in vitro studies which showed that the smooth silicone surface prevented Candida albicans growth.

Not available in all markets.

OTHER PRODUCTS

MULTI TRAYS

Partial impression trays made of plastic for single use for anatomical and/or precision impressions.

Saves time and money

- Combines three steps in one (impression, opposing dentition impression, and bite registration)
- No additional adhesive required
- Scannable

Simple and varied handling

- Suitable for inlays/onlays or single crowns
- Stable, grooved tray sides for high strength; thin, mobile, tear-proof gauze for precise impression results

Silginat® / Silginat® Strawberry p. 11
Identium® p. 14-15
Panasil® tray p. 23
Panasil® monophase Medium p. 24

Anterior

Posterior

Quadrant

Anterior	Posterior	Quadrant
30 pieces	50 pieces	30 pieces
REF 17752	REF 17750	REF 17753

Not available in all markets.

OTHER PRODUCTS

PANASIL® LAB PUTTY

Panasil® lab Putty is a kneadable, addition-curing overcast material based on vinyl polysiloxane with a high final hardness and is therefore ideal for use as an overcast and bite index material. Other laboratory work such as model fabrication for fracture and crack repairs can be easily carried out.

Effective use

- Clean and easy dosage
- Non-sticky, smooth kneading

All the advantages of an A silicone

- Dimensional stability
- High detail reproduction
- Linear dimensional change ≤ -0.1%

Easy to process

- Very short setting time (6 minutes at 23°C)
- Precise retention of the teeth in the overcast thanks to the high final hardness (Shore A 85)

Panasil® lab Putty

- ⊕ Overcast material
- ⊕ Bite index material
- ⊕ Fracture repairs
- ⊕ Crack repairs

⊕ Highly recommended
⊕ Recommended

10 kg **Economy pack** 1:1
1 × 5 kg catalyst paste, 1 × 5 kg base paste,
2 × dispensing scoops

REF 11153

Not available in all markets.

OTHER PRODUCTS

ORTHOSKAVIDENT® C

Orthoskavident® C is a conditioning fluid for cleaning and drying prepared cavities and tooth stumps. Can be used for all external applications in the dental practice that require a clean and oil-free surface.

Easy to handle

- Orthoskavident® C in the 150 mL glass bottle is easy to use and simple to process.

Wide range of uses

- For all external applications that require a clean and oil-free surface such as removing the smear layer on the surface of prepared teeth before attaching a fixed dental restoration or inserting fillings; replacing or repairing damaged veneers in the mouth.
- Sealing teeth; adhering brackets in orthodontics, etc.

Orthoskavident® C

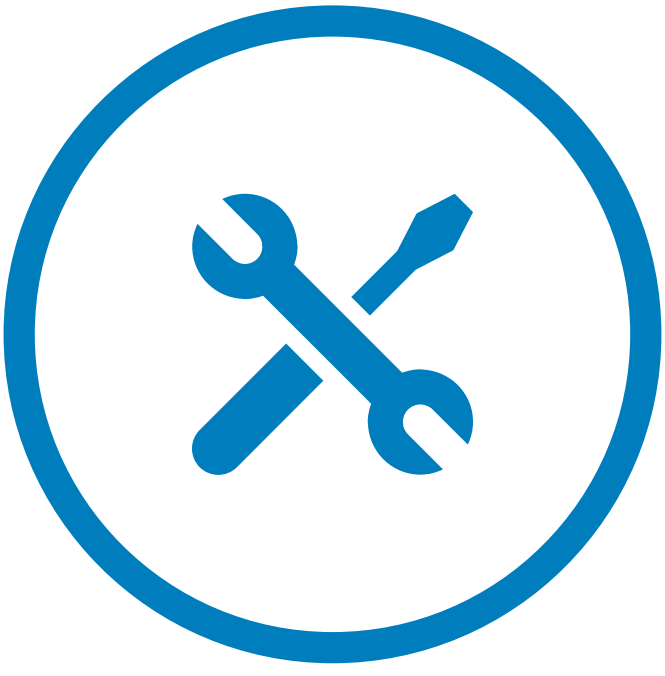
Cleaning and drying prepared cavities and tooth stumps

Highly recommended
Recommended

150 mL	**Normal pack** 150 mL bottle	REF 13063
450 mL	**Economy pack** 3 × 150 mL bottle	REF 13065

Not available in all markets.

ACCESSORIES



ADHESIVES

To ensure the best possible adhesion between the impression tray and the impression material, it is recommended to use an adhesive that is appropriate for the chemical composition of the impression material.

Available in 1 x 10 mL glass bottles:

- Easy to apply
- Quick drying time
- Good visual inspection

Best possible retention of the impression in the impression tray

- Adhesive and impression material are coordinated in terms of their chemistry

Identium® Adhesive

- Specifically for Vinylsiloxanether® impression material (Identium®)

Panasil® Adhesive

- Specifically for all addition-curing impression materials (A-silicones) such as Panasil®

Mucopren® Adhesive

- Optimal adhesion of Mucopren® Soft to acrylic dentures
- Prevents the formation of gaps between the denture acrylic and the reline silicone

Identium® Adhesive	Panasil® Adhesive	Mucopren® Adhesive
10 mL bottle	10 mL bottle	10 mL bottle
REF 14204	REF 14101	REF 14203

Not available in all markets.

MIXING SYSTEMS

Impression material / Bite registration material

Mixing tips red, Ø 4.0 mm
Impression materials:
Panasil® initial contact X-Light/-Fast,
Panasil® initial contact Light/-Fast,
Panasil® contact plus X-Light
Identium® Light/-Fast,
Bite registration materials:
Futar® Cut & Trim Fast

50 tips **REF 17249**
100 tips **REF 17250**

Dynamic mixers blue
for 380 mL jumbo cartridges

45 tips **REF 17900**

Mixing tips blue, Ø 6.0 mm
Impression materials:
Panasil® monophase Medium,
Panasil® initial contact Regular,
Panasil® contact two in one Light,
Panasil® tray Fast Heavy,
Panasil® tray Soft Heavy,
Panasil® tray Soft Heavy Fast,
Silginat®/-Strawberry
Bite registration materials:
Futar®, Futar® Fast, Futar® D,
Futar® D Fast, Futar® D Slow

50 tips **REF 17244**
100 tips **REF 17246**

Restoration material

Mixing tips blue-orange, Ø 3.2 mm
Temporary crowns/bridge material:
Visalys® Temp

50 tips **REF 13789**

Mixing tips blue, Ø 2.5 mm
Cementation and
core build-up composite:
Visalys® CemCore

50 tips, tapered **REF 17236**
50 tips, blunt **REF 17238**

Mixing tips brown, Ø 2.5 mm
Core build-up composite
(9 g (5 mL) automix syringe):
Visalys® Core

50 tips **REF 17232**

Mixing tips yellow, short, Ø 4.2 mm
Core build-up composite
(45 g (25 mL) cartridge):
Visalys® Core

50 tips **REF 17230**

Soft relining material

Mixing tips green, Ø 6.5 mm
Mucopren® Soft

50 tips **REF 17234**

Mixing tips light blue, Ø 3.2 mm
Mucopren® silicone sealant

60 tips **REF 17217**

Intraoral tips and Endo tips

Intraoral tips transparent, Ø 0.6 mm
for mixing tips red, Ø 4.0 mm

100 tips **REF 17259**

Intraoral tips white, Ø 1.0 mm
for mixing tips blue, Ø 6.0 mm

100 tips **REF 17260**

Intraoral tips yellow, Ø 0.6 mm
for mixing tip yellow, Ø 4.2 mm

50 tips **REF 17225**

Intraoral tips transparent, Ø 1.2 mm
for mixing tips blue blunt /
brown, Ø 2.5 mm

50 tips **REF 17223**

Endo tips transparent, Ø 0.9 mm
for mixing tips blue blunt /
brown, Ø 2.5 mm

50 tips **REF 17224**

Not available in all markets.

APPLYFIX

Applyfix are manual dispensing guns and syringes for dosing and applying modern impression materials. The plastic products can be easily disinfected to satisfy the most stringent hygiene requirements and have a compact ergonomic design, which makes them easy and efficient to use.

Applyfix 4

- Plastic dispensing gun for 50 mL cartridges with a 1:1/2:1 ratio. **Suitable for: Identium®, Silginat®, Panasil®, Futar®** and **Mucopren® Soft.**

Applyfix 5

- Plastic application syringe (with syringe tips) for precise application of syringeable impression materials. **Suitable for: Identium®, Panasil®**

Applyfix 6

- Plastic dispensing gun for 50 mL cartridges with a 4:1/10:1 ratio. **Suitable for: Visalys® Temp**

Applyfix 8

- Plastic dispensing gun for 25 mL cartridges with a 1:1/2:1 ratio. **Suitable for: Visalys® Core**

Applyfix 4	**Applyfix 5**	**Applyfix 6**	**Applyfix 8**	**Syringe tips**
for 50 mL cartridges 1:1/2:1	2 application syringes made of plastic, 12 syringe tips + accessories	for 50 mL cartridges 4:1/10:1	for 25 mL cartridges 1:1/2:1	for Applyfix 5, 50 pieces
REF 17203	REF 17204	REF 17208	REF 17212	REF 17207

Not available in all markets.

SYMPRESS DISPENSER

Electrical dosing and mixing device for automated mixing of impression materials in the Kettenbach Dental **Plug & Press® system** and related systems in a mixing ratio of 5:1 (impression materials in foil bags or jumbo cartridges).

Precise and homogeneous dispensing

- Bubble-free mixing for precise impression results
- Precise dispensing of the required quantity of material: just the material that's needed

Hygienic and reproducible

- Standardized dosing and mixing at the touch of a button, independent of the operato.
- Simple and hygienic with electronic processes replacing manual operation

Adjustable extrusion speed

- Automated advance/withdrawal
- Different extrusion speeds for trays or syringe filling

Guaranteed reliable technology

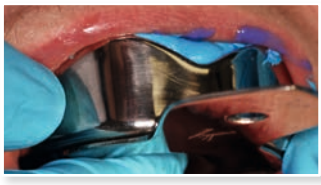
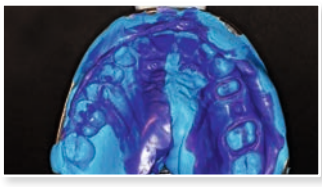
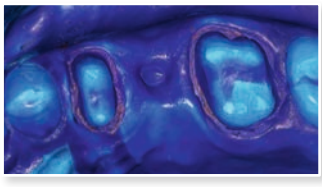
- Simple and safe operation
- Device is based on the latest state of the art with a 3 year manufacturer's warranty

Sympress dispenser	Wall mounting bracket	Unit cover	Pressure plate	Base
REF 35910	REF 35908	REF 35905	REF 35906	REF 35907

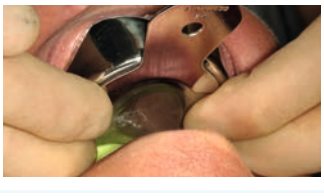
Not available in all markets.

APPLICATION OF **IDENTIUM**® HEAVY AND **IDENTIUM**® LIGHT

1	**Select the impression tray** The width at the maxillary tuber in the upper jaw and at the mandibular alveolar tuberculum in the lower jaw are determined.			Preferably use a closed tray. The distance between the tray wall and the tooth equator should be at least 3 times greater than the depth of the undercut.
2	**Prepare the impression tray** Apply adhesive 5 min before taking the impression. (Follow the manufacturer's instructions!)		**Identium**® Adhesive (for Vinylsiloxanether®)	**Warning:** Use only the adhesive that is recommended for the impression material. For perforated trays, also use adhesive!
3	**Assess the oral situation** Block out any large undercut areas (e.g., bridge elements, wide interdental spaces).		Wax or other block-out materials	
4	**Ensure good conditions for taking the impression** Expand the sulcus and stop any bleeding. For subgingival preparation margins, use retraction cords.			**Warning:** When using astringents and other solutions, beware of any interactions. Test beforehand where applicable.
5	**Clean the prepared stumps** Remove any residual blood, clean and dry.		**Sugi**® or pellet with **Orthoskavident**® C	Soak a cotton pellet with **Orthoskavident**® C.
6	**Mix the impression material** Homogeneously mix the **Identium**® Heavy and fill the tray. Leave the mixing tip in the material when doing so.		**Identium**® Heavy, Sympress dispenser	When using the cartridge for the first time, ensure that the mixture is homogeneous. At least the first 3 cm should be discarded once.
7	**Fill the impression tray completely with the material** **Important:** Also cover the hard palate in the upper jaw tray with material or insert stops.		Place stops made of wax, for example.	Note the processing time!

8	**Remove the retraction cords** If retraction cords have been placed, remove them now.			
9	**Inject around the preparation** Apply low-viscosity material into the sulcus and around the stump. The tooth surfaces are immediately wetted.		**Identium**® Light	Note the total processing time!
10	**Insert into the patient's mouth** Insert the filled impression tray into the patient's mouth vertical to the occlusal plane while slowly applying pressure and hold in position.			**Warning:** Do not fully depress the tray! Do not hand the impression tray over to others! Note the setting time of the material!
11	**Remove from the mouth** After the material has completely set, remove the impression and then rinse and dry it.			Remove the impression in the same direction as the tooth axis. Tilting the tray too much can cause permanent deformations.
12	**Check the impression** Check that the preparation margins and surrounding mucosal areas have been fully transferred. Assess any imperfections.			
13	**Disinfect the impression** Follow the manufacturer's instructions.			It is recommended to carry out an immersion disinfection, which involves wetting the surface entirely. A contact time of 10 minutes must be adhered to.

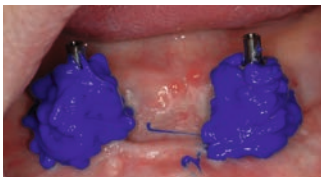
APPLICATION OF **PANASIL**® BINETICS PUTTY FAST WITH **PANASIL**® INITIAL CONTACT X-LIGHT

1	**Select the impression tray** The width at the maxillary tuber in the upper jaw and at the mandibular alveolar tuberculum in the lower jaw are determined.			Preferably use a closed tray. The distance between the tray wall and the tooth equator should be at least 3 times greater than the depth of the undercut.
2	**Prepare the impression tray** Apply adhesive onto a clean and dry impression tray 5 minutes before taking the impression. (Follow the manufacturer's instructions!)		**Panasil**® Adhesive (for A-silicones)	**Warning:** Use only the adhesive that is recommended for the impression material. For perforated trays, also use adhesive!
3	**Assess the oral situation** Block out any large undercut areas (e.g., bridge elements, wide interdental spaces).		Wax or other block-out materials	
4	**Ensure good conditions for taking the impression** Expand the sulcus and stop any bleeding. For subgingival preparation margins, use retraction cords.			**Warning:** When using astringents and other solutions, beware of any interactions. Test beforehand where applicable.
5	**Clean the prepared stumps** Remove any residual blood, clean and dry.		**Sugi**® or pellet with **Orthos-kavident**® C	Soak a cotton pellet with **Orthoskavident**® C.
6	**Mix the impression material** Homogeneously mix the **Panasil**® binetics Putty Fast, leaving the mixing tip in the material.		**Panasil**® binetics Putty Fast, Sympress dispenser	When using the cartridge for the first time, ensure that the mixture is homogeneous. At least the first 3 cm should be discarded once.
7	**Fill the impression tray completely with the material** **Important:** Also cover the hard palate in the upper jaw tray with material or insert stops.		**Panasil®** binetics Putty Fast	Exert a slight counter pressure with the tray against the extruded material during the filling so that the putty strands coalesce.
8	**Insert into the patient's mouth** Insert the filled impression tray into the patient's mouth while applying slight pressure and hold in position.			**Warning:** Do not fully depress the tray to the base! Note the setting time of the material.

9	**Remove and trim the preliminary impression** Carefully remove undercuts, interdental septa, and excess from the edge of the tray. Add outlet channels and identify the middle of the jaw.		Interdental knife	Before carrying out the two-step impression, check that the impression can be repositioned perfectly in the mouth. Then rinse again with water and dry.
10	**Remove the retraction cords** Remove any retraction cords that have been placed before the correction impression. Only the last cord placed is removed with the double-cord technique.			
11	**Apply the correction material** Place a strip of the very low-viscosity material into the preliminary impression.		**Panasil**® initial contact X-Light	The opening of the mixing or application tip should always remain in the material to prevent inclusion of air.
12	**Inject and reposition** Apply low-viscosity material into the sulcus and around the stump. The tooth surfaces are immediately wetted. Reposition the preliminary impression.		**Panasil**® initial contact X-Light	After successfully injecting around the stump, the preliminary impression must be immediately repositioned. The oral temperature accelerates the setting.
13	**Remove from the mouth** After the material has completely set, remove the impression and then rinse and dry it.			Remove the impression in the same direction as the tooth axis. Tilting the tray too much can cause permanent deformations.
14	**Check the impression** Check that the preparation margins and surrounding mucosal areas have been fully transferred. Assess any imperfections.			Ensure that the preparation margins and adjacent areas are reproduced in detail.
15	**Disinfect the impression** Follow the manufacturer's instructions.			It is recommended to carry out an immersion disinfection, which involves wetting the surface entirely. A contact time of 10 minutes must be adhered to.

APPLICATION OF **IDENTIUM**® MEDIUM

1	**Construct a custom-made tray**			When using the open tray technique, note the outlets for the fixation screws for the impression posts. Reinforce the outlets with a surrounding sheath.
2	**Fix the impression posts on the implant**			When using an open tray, the fixation screws should protrude sufficiently through the perforations to ensure good access to the screws once the impression has been taken.
3	**Prepare a custom-made tray** Apply adhesive 5 min before taking the impression (Follow the manufacturer's instructions!).		**Identium**® Adhesive (for Vinylsiloxanether®)	**Warning:** Use only the adhesive that is recommended for the impression material.
4	**Assess the oral situation** With residual teeth, block out any severe undercuts.		Wax or other block-out materials	
5	**Fill application syringe** Pass the filled application syringe to the clinician and immediately continue with step 6.		Applyfix 5	Avoid air inclusions when filling. When using an application syringe, ensure that no impression material residue remains in the syringe. After injection of the material, the filled impression tray must be inserted immediately. The oral temperature accelerates the setting of the material.
6	**Mix the impression material** Homogeneously mix the **Identium**® Medium and fill the custom-made tray. Leave the mixing tip in the material to prevent bubbles.		**Identium**® Medium, Sympress Dispenser	When using the cartridge for the first time, ensure that the mixture is homogeneous. At least the first 3 cm should be discarded once.

7	**Inject around the impression posts** The posts must be completely surrounded by the material.		**Identium**® Medium	Note the total processing time. Leave the application tip in the material to prevent bubbles.
8	**Insert into and remove from the patient's mouth** Insert the filled impression tray into the patient's mouth and hold in position until the material has set. With the open tray technique, loosen the fixation screws of the transfer posts before removal. Clean and dry the impression.			**Warning:** Do not hand the impression tray over to others! Note the setting time of the material! Do not fully depress the tray to the base.
9	**Check and, if necessary, reposition the impression posts** Check that the transfer posts are correctly positioned.			
10	**Disinfect the impression** Follow the manufacturer's instructions.			It is recommended to carry out an immersion disinfection, which involves wetting the surface entirely. A contact time of 10 minutes must be adhered to.

APPLICATION OF **VISALYS**® TEMP

1 Take an anatomical impression

Before the preparation, determine the initial situation using an anatomical impression (if possible). Select an appropriate impression tray and impression material.

Impression tray (we recommend torsion-resistant trays with no perforations to maintain the dynamic pressure), impression material

The use of an A-silicone such as **Silginat**® is recommended (unlimited storage, can be poured out repeatedly, that is, only 1 anatomical impression has to be prepared! The high elastic recovery properties ensure exceptionally precise results.). For smaller tasks, partial trays (e.g., the Multi Trays from Kettenbach Dental) save time and are cost effective.

2 Process the anatomical impression

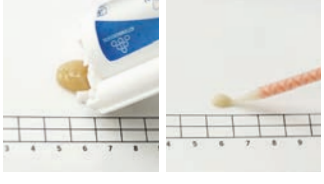
Trim back the anatomical impression with a scalpel; shorten any disruptive interdental septa; check whether the impression can be repositioned without any difficulties.

Scalpel

Cut out any interdental septa in the impression; if necessary, place a central line between the incisors by marking with a notch. Cover any adjacent existing restorations made of composite with petroleum jelly, for example, to prevent adhesion.

3 Initial use and application

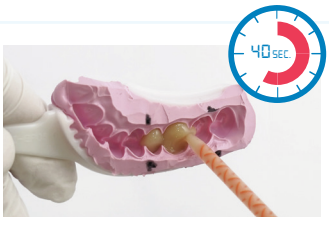
When activating the cartridge for the first time, it must be ensured that both components are extruded at the same time. Ensuring uniform extrusion is only necessary for the first use and subsequently material no longer needs to be discarded.



After each change of mixer, before filling the impression ensure that a small quantity of the temporary plastic is applied to ensure the correct mixing ratio.

4 Application into the impression

Fill from the occlusal surface outwards. The end of the mixing tip should always remain in the material to prevent inclusion of air. The quantity of material should not go beyond the gingival margin.

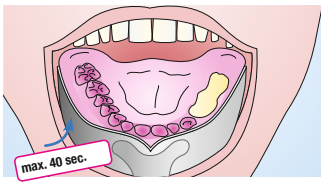


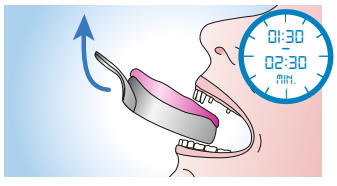
Visalys® Temp, Applyfix 6 dispensing gun, blue-orange mixing tips

Tip: Start the stopwatch before filling the impression so that the processing time can be checked.

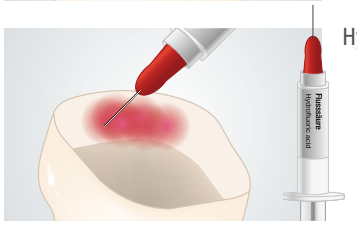
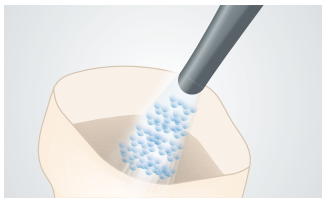
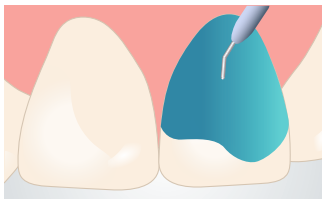
5 Insert into the patient's mouth

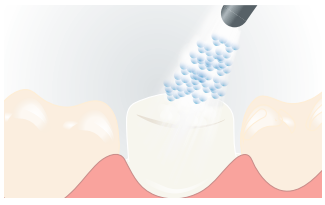
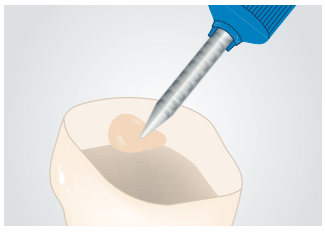
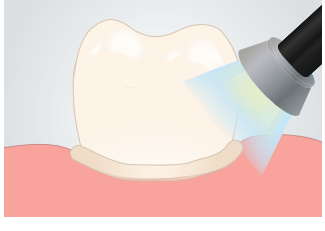
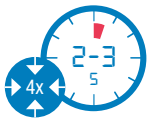
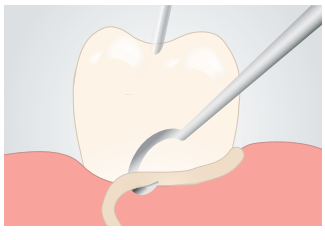
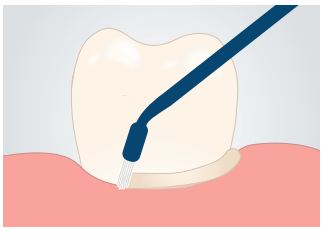
Place into the patient's mouth, applying slight pressure, within 40 seconds of starting the mixing.



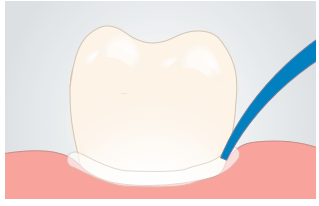
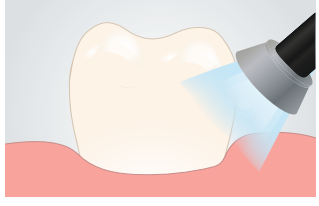
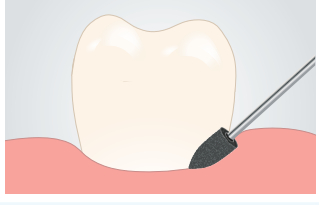
6	**Check the correct removal time** Check the level of hardness in the patient's mouth using excess material.		Check using a probe or similar	Earliest removal from the mouth after 1:30 min. including working time! **Visalys**® Temp reaches an optimal elastic phase for easy removal on average 2:00 min. after the start of mixing.
7	**Remove from the patient's mouth** Remove the temporary restoration from the patient's mouth during the elastic phase between 1:30 and 2:30 min. after the start of mixing.			Early removal (temporary restoration is still very elastic): with severe undercuts and large bridge spans. Later removal (temporary restoration is already relatively hard): for smaller tasks and those with few undercuts.
8	**Repairs** Repairs (e.g., due to air bubbles or fracture sites) can be made directly with **Visalys**® Temp or a flowable composite. The oxygen inhibition layer (smear layer) should not be removed before carrying out repairs.		**Visalys**® Temp or flowable composite	For older temporary restorations that were inserted into the patient's mouth several days earlier, the surface must first be mechanically roughened. A self-etching (enamel/dentin) bonding agent should be used in addition to the composite.
9	**Finish** 4:00 min after starting mixing, **Visalys**® Temp has set completely and the temporary restoration can be finished.		Cross-cut stainless steel bur; narrow bur; disc	Before finishing the temporary restoration, the oxygen inhibition layer (smear layer) should be removed because otherwise the bur will rapidly become clogged and blunt. Swabs soaked in alcohol or disinfectant swabs are suitable for this purpose.
10	**Polish** Polishing the temporary restoration creates a smoother surface with higher luster that makes the accumulation of plaque more difficult and also feels more pleasant for the patient.		Composite polishers, cotton buff, goat hair brush	Generally, the surface of **Visalys**® Temp is already sufficiently smooth that additional polishing can usually be omitted altogether.
11	**Cement** The temporary fixation cement should, with a brush or spatula if necessary, be applied in a thin layer to all internal walls of the temporary restoration.		Temporary cement	Eugenol may impair the curing of luting composites; if composite materials are planned for the permanent restoration, a eugenol-free temporary luting cement should be used to cement the temporary restoration.

APPLICATION **VISALYS**® CEMCORE CEMENTATION

1	**Pretreatment of restoration** **Restorations of (noble) metal, oxide ceramic, composite** Sandblast with aluminium oxide (≤ 50 µm), rinse and dry. **Do not use phosphoric acid gel!** OR **Restorations of silicate ceramic (feldspar and glass ceramic), hybrid ceramic** Apply hydroflouric acid as per the product manufacturer's instructions.	 	Sandblaster Hydroflouric acid	In each case, note the information provided by the manufacturer of the restoration material.
2	Apply **Visalys**® Restorative Primer with a disposable applicator or brush onto the adhesive surfaces and allow it to work in for 60 sec.	 	**Visalys**® Restorative Primer, Disposable applicator Wait 60 SEC.	Drop **Visalys**® Restorative Primer into a preparation tray. Light protection is not necessary. Close primer bottle carefully after each use.
3	Dry with a gentle jet of water / oil-free air.		Air blower	**Visalys**® Restorative Primer is non-light curing.
4	**Pretreatment of enamel / dentin** **Crowns, bridges, inlays, onlays, partial crowns, dentin, cut enamel** OPTIONAL: phosphoric acid etching OR **For veneers, adhesive bridges and uncut enamel** NECESSARY: phosphoric acid etching	 	Phosphoric acid	**Visalys**® Tooth Primer (for tooth structure) is a self-etching single-component primer and can therefore be used without additional phosphoric acid etching. Only with cementation of veneers and adhesive bridges and with uncut enamel is selective phosphoric acid etching necessary.
5	Apply **Visalys**® Tooth Primer to the entire adhesive surface of the tooth surface using a suitable applicator and rub in for 20 sec.	 	**Visalys**® Tooth Primer, Applicator Rubbing 20 SEC.	Drop **Visalys**® Tooth Primer into a preparation tray. Light protection is not necessary. After applying the **Visalys**® Tooth Primer, start with the further processing immediately. Close primer bottle carefully after each use.

6	Dry with a gentle jet of water / oil-free air.		Air blower	**Visalys**® Tooth Primer is non-light curing.
7	**Cementation with Visalys® CemCore** Apply **Visalys**® CemCore on the inside surfaces of the restorations and on the core or cavity surfaces, as applicable.		**Visalys**® CemCore	In the case of application in the mouth, the processing time is reduced and the restorations must be placed within 2 min.
8	Place the restoration on the core or in the cavity.			
9	**Removing excess: Two methods are possible.** **METHOD 1:** Cure with light 2-3 sec. per quarter surface. (Alternatively: self-cure until gel phase: approx. 2-3 min.)		Polymerization lamp 	The excess is either polymerized with a commercially available polymerization lamp (1200 mW / cm²) for 2-3 sec. oral and vestibular as well as mesial and distal – i.e. at four points – or wait for the gel phase in self-curing.
10			e. g. Scaler	The excess, which is still soft-elastic, can be easily removed with a scaler.
	OR			
10	**METHOD 2:** Immediately remove excess. (Without initial curing – Skip step 9)		e. g. cotton pellet, brush or foam pellet	Remove the excess directly, e.g. with a cotton pellet, brush or foam pellet.

APPLICATION **VISALYS**® CEMCORE CEMENTATION / ROOT POST CEMENTATION

11	**Final curing / Finishing** After removal of excess, the cement joint can be covered with a glycerin gel or polyethylene glycol paste, e.g. **Visalys**® CemCore Try In Paste, to avoid the formation of an inhibition layer.		e. g. **Visalys**® CemCore Try In Paste	Tip: **Visalys**® CemCore Try In Paste is suitable for this purpose and can be easily removed with water.
12	Polymerize each surface / cement joint for 10 sec. with light.		Polymerization lamp 	
13	**Non-translucent restorations (e. g. metal crown)** For non-translucent restorations, the final curing must be allowed to complete beneath the restoration.			
14	Rough cement joints can be finished and polished.		Polisher	

APPLICATION **VISALYS**® CEMCORE ROOT POST CEMENTATION

1	**Pretreatment of the root post** Apply **Visalys**® Restorative Primer with a disposable applicator or brush onto the adhesive surfaces and allow it to work in for 60 sec.		**Visalys**® Restorative Primer. Disposable applicator 	Apply **Visalys**® Restorative Primer. In each case, note the information provided by the manufacturer of the post material. **Note: If the manufacturer of the root post or indirect core build-up recommends silanization or pre-treatment with a primer for metal or oxide surfaces or a primer-adhesive / universal adhesive-activator combination, the Visalys® Restorative Primer can be used for this purpose.**
2	Dry with a gentle jet of water / oil-free air.			

APPLICATION **VISALYS**® CEMCORE ROOT POST CEMENTATION

3

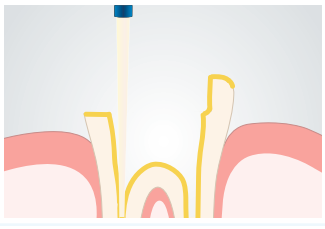
Pretreatment of the tooth structure

Whetten the cleaned and dried surfaces of the root canal, the coronal dentin and the enamel parts, as applicable, completely with **Visalys**® Tooth Primer and rub in for 20 sec.

Visalys® Tooth Primer, Applicator

4

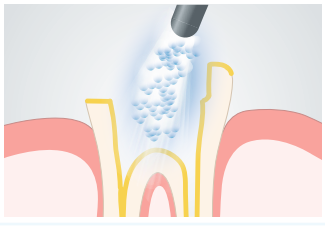
Remove excess from the root canal with a paper tip.



Paper tip

5

Dry all surfaces with a gentle jet of water / oil-free air.

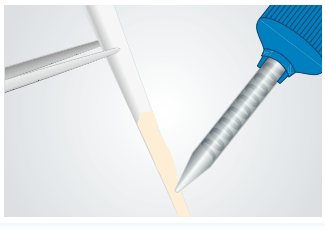


Air blower

6

Cementation with Visalys® CemCore

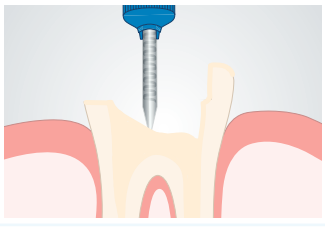
Apply **Visalys**® CemCore to the post,...



Visalys® CemCore, Tweezer

7

... into the root canal and the remaining surfaces of the tooth structure. **DO NOT USE LENTULO!**

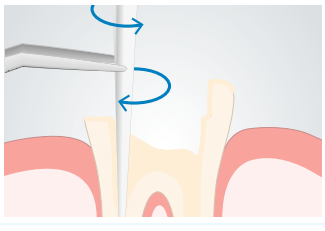


Visalys® CemCore

While discharging, it is recommended that the tip of the used mixing tip always remains in the material.

8

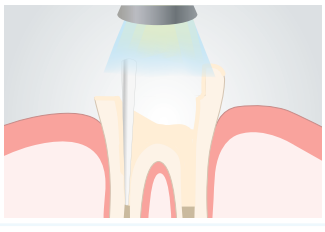
Insert the post using rotating movements.



Tweezer

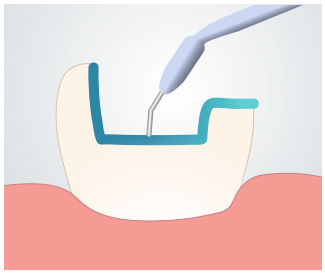
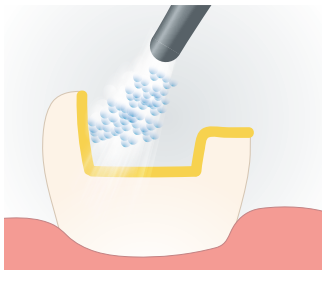
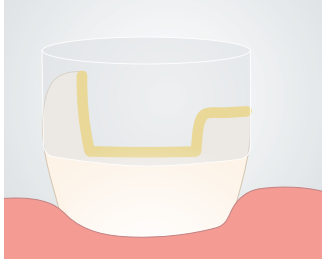
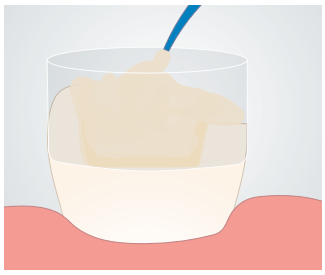
9

To fix the post, the material can be light-cured with a suitable polymerization lamp for 10 sec.



Polymerization lamp

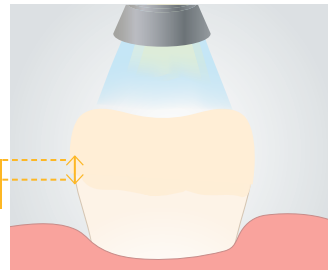
APPLICATION **VISALYS**® CEMCORE CORE BUILD-UP

1	**Pretreatment of the tooth structure** **Without root post** Selective phosphoric acid etching of the enamel may be undertaken optionally. **After cementation of root post** Proceed directly to step 4.		Phosphoric acid 	**Visalys**® Tooth Primer (for tooth structure) is a self-etching single-component primer and can therefore be used without additional phosphoric acid etching.
2	Apply **Visalys**® Tooth Primer to the entire adhesive surface of the core or the cavity using a suitable applicator and rub in for 20 sec.		**Visalys**® Tooth Primer, Applicator 	Drop **Visalys**® Tooth Primer into a preparation tray. Light protection of the primer is not necessary. After applying the **Visalys**® Tooth Primer, start with the further processing immediately. Close primer bottle carefully after each use.
3	Dry with a gentle jet of water / oil-free air.		Air blower	**Visalys**® Tooth Primer is non-light curing.
4	Optional: Apply a matrix.		Matrix	The use of a transparent matrix makes it easier for light to enter in the case of optional light curing.
5	Apply **Visalys**® CemCore directly into the cavity.		**Visalys**® CemCore	In the case of very badly damaged teeth, a core build-up mold can be used. The mold is filled with **Visalys**® CemCore and then placed on the residual tooth substance.

6

Light cure for 20 sec.[1] If the layer thickness is above the specified polymerization depths[2], wait until the chemical curing process is complete.

The polymerization depth of the Visalys® CemCore shades are listed in the table below.



Polymerization lamp

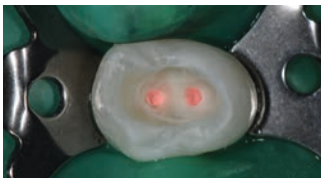
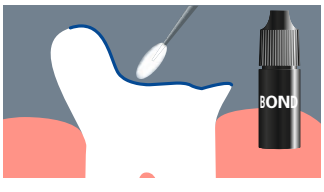
Note: Remove matrices or core forms only after final self-curing.

[1] Light intensity: 1200 mW / cm²

[2]

Shade of Visalys® CemCore	Polymerization depth
Translucent	approx. 2.5 mm
Universal (A2 / A3)	approx. 2.0 mm
Bleach, Dark (A4)	approx. 1.5 mm
Opaque	approx. 0.5 mm

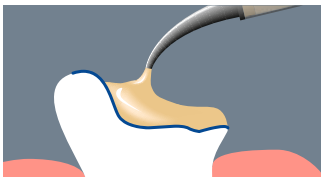
APPLICATION OF **VISALYS®** CORE

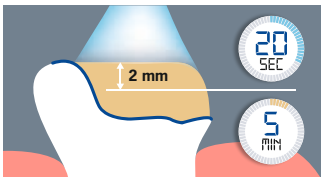
1	**Preparation** Remove any root filling with appropriate instruments or a reamer down to the desired depth.			
2	**Prepare the post bed**		E.g., with the instruments from the Erlanger system (Komet)	To create an apical seal, a root filling of about 3-4 mm should be left [1] with the post bed ideally having a total length of 2/3 of the root length but it should be at least the length of the clinical crown [1, 2].
3	**Adjust the root post** The preparation of the post bed should be carried out until all residual root filling material is removed from the walls and the root posts that fit the selected system drill can be inserted into the canal with slight friction.			Cleaning and disinfection of the post bed is carried out using 95% ethanol, for example. Then remove any excess ethanol from the post bed with paper points.
4	**Adhesive cementation of the post** The root posts (depending on the choice and the manufacturer) can be cemented with conventional dental cements or adhesively with dual- or self-polymerizing composites (such as **Visalys®** Core). Any excess bonding material must be removed with a gentle air jet.	 	Selected root post; follow the root post manufacturer's instructions for preparation.	Unlike conventional cementation, adhesive cementation has the advantage of producing a single unit made up of tooth, post, and core build-up. With adhesive insertion the risk of micro leaks along the cement seam and the associated risk of bacterial invasion is also reduced or prevented.
5	**Fill the root canal** Now fill the post bed with **Visalys®** Core. Insert the root posts into the canals while rotating slightly. The material is initially light cured for 20 seconds (chemical curing after 5 minutes).	 	**Visalys®** Core in the 5 mL syringe with an endo tip; polymerization lamp	Endo tips make application into the root canal easier; the good flow properties of **Visalys®** Core allow the root post to be easily inserted.

6

Core build-up

The core can be prepared in the form of a build-up with **Visalys**® Core, producing a fixed unit of tooth, post, and build-up filling.





Visalys® Core (5 mL syringe with an endo tip or 25 mL cartridge), polymerization lamp

Visalys® Core is flowable and adjusts optimally to the situation but is also stable enough to freely build up a core. 20 seconds light curing for a polymerization depth of 2 mm. 5 minutes chemical curing for unlimited polymerization depth.

7

Prepare the tooth

After the build-up has set, the preparation can be carried out in line with the planned final restoration.

The preparation margins should lie completely in the dentin in the form of a ferrule design to ensure better force transmission to prevent root fractures [1–5].

Example images

Images illustrate the use by Dr Marco Dziwak based on a correctly performed endodontic pretreatment that was carried out elsewhere.

Literature:

1. DGZMK statement. "Build-up of endodontically treated teeth." (2003). http://www.dgzmk.de/uploads/tx_szdgzmkdocuments/Aufbau_endodontisch_behandelter_Zaehne.pdf
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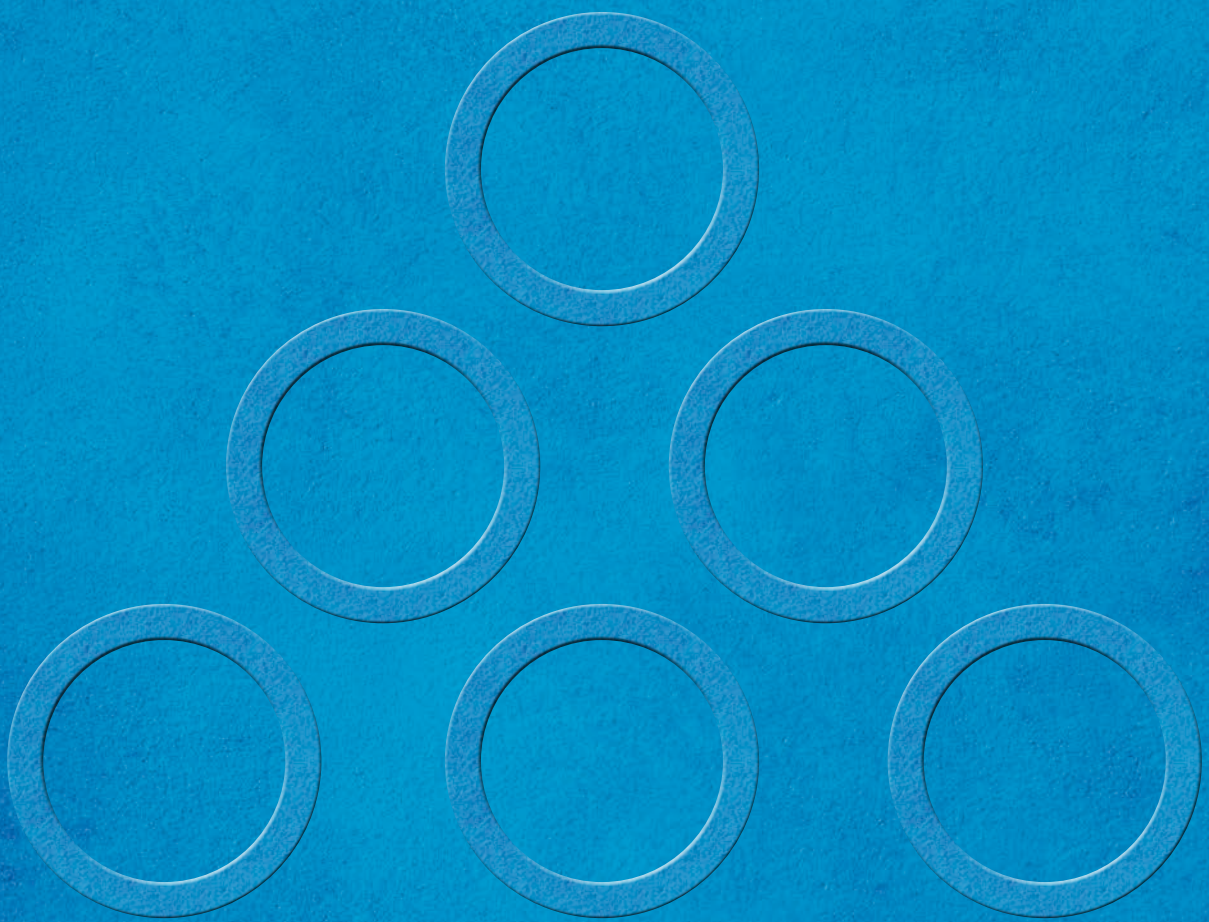
4. Hemmings K. W., King P. A., Setchell D. J. „Resistance to torsional forces of various post and core designs." The Journal of prosthetic dentistry 66.3 (1991): 325-329.
5. Barkhordar R. A., Radke R., Abbasi J. „Effect of metal collars on resistance of endodontically treated teeth to root fracture." The Journal of prosthetic dentistry 61.6 (1989): 676-678.



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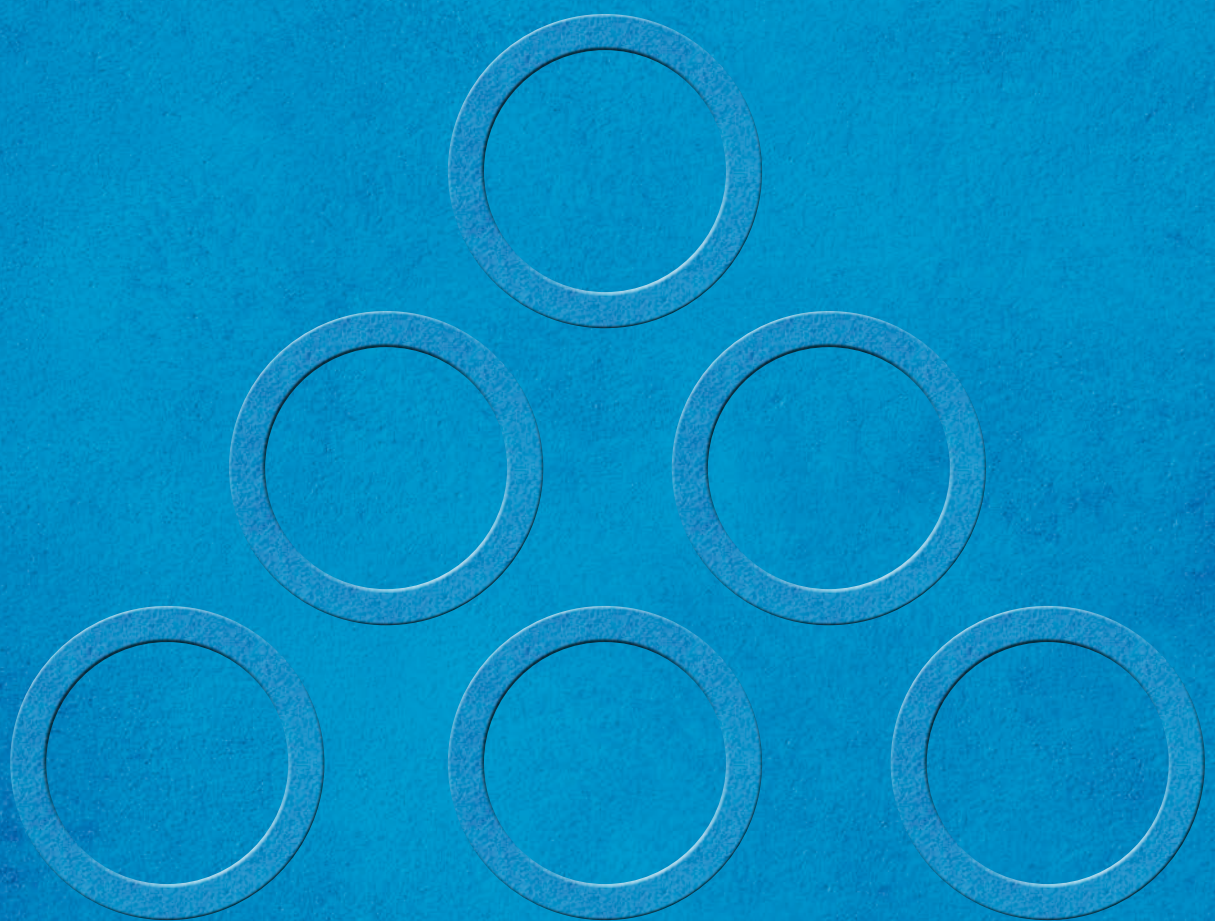
INDEX



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