zolid
DNA GENERATION

AMANNGIRRBACH

EN

DENTISTRY UNIFIED

Highly esthetic and precisely fitting restorations made of Zolid zirconia

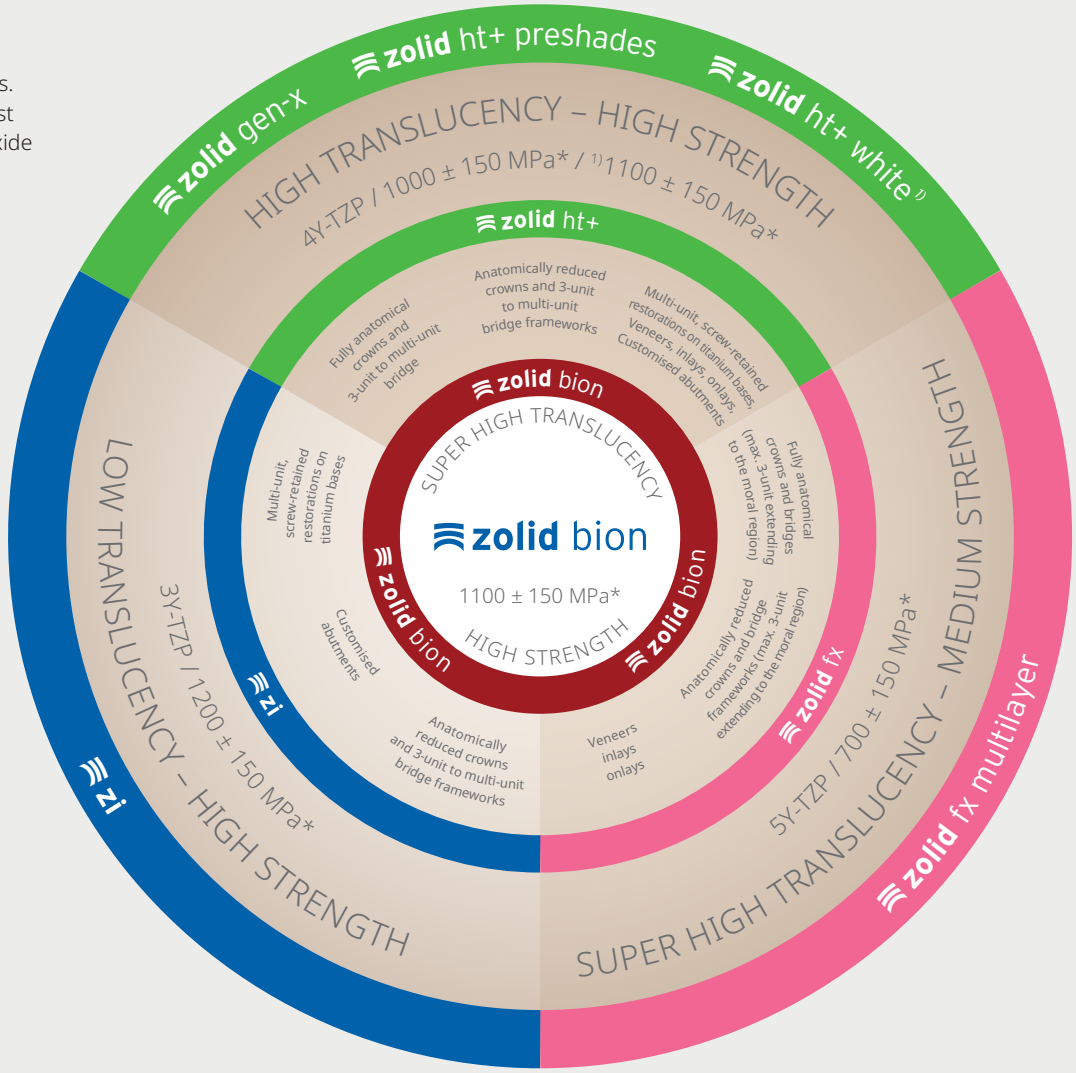
Zolid Processing Techniques

INTRODUCTION

Overview of the Zolid product range

Zirconium oxide for great expectations

Zirconium oxide enjoys great popularity due to its convincing technical as well as optical properties. Its versatility and outstanding biocompatibility frequently make high-performance ceramics the first choice for high-quality restorations with high esthetic demands. With the Zolid brand zirconium oxide blanks, Amann Girrbach offers the right material for every zirconium-based indication to fabricate restorations with long-term stability and natural esthetics economically and efficiently.



100 % | manufactured in-house
10 Mio units | clinically proven
open to all systems
TOSOH

100 % Made in Austria

VERSATILE. CLINICALLY PROVEN. ESTHETIC
PARAMOUNT PROCESSING
ZIRCONIA FOR THE HIGHEST REQUIREMENTS

10 YEARS WARRANTY
zolid ZIRCONIA

*Average of three-point bending test as defined in DIN EN ISO 6872, R&D Amann Girrbach
**According to dental ceramics Classes 4 and 5 as per DIN EN ISO 6872

Optimized workflows for maximum patient satisfaction

As esthetics are not happenstance

Amann Girrbach's Esthetic Management comprises products and solutions required for all work steps from milling and sintering of a restoration through to the final result. Here, the focus is on the most efficient, simple and reproducible workflows for the user – for highly esthetic results and high patient satisfaction.

The clearly illustrated processing technique as well as numerous video tutorials guide users through the process step by step. In addition, users have a wide range of courses and online webinars at their disposal. Add to this the new products and aids that make daily work with zirconia considerably easier for the user.

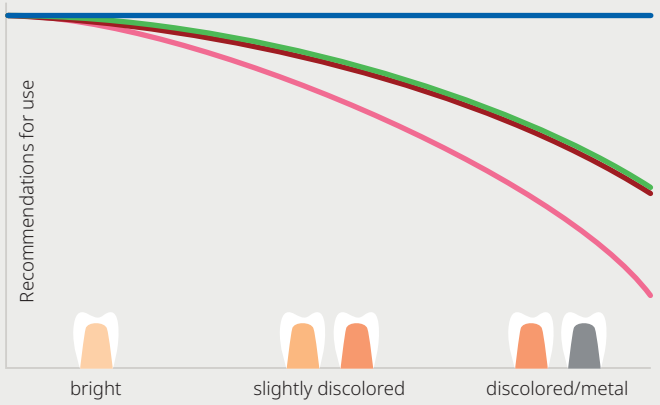
Adjustment of existing parameters

Processing techniques and indications

The optimum zirconium oxide for an indication is determined by a host of different factors. Esthetic requirements, the position of the denture in the patient's mouth or the shade of the stump have a decisive influence on the choice of material. The more precisely the shade of the stump, the material and the indication are matched, the more predictable and esthetically accurate the final result will be realized.

STUMP SHADE	TRANSLUCENCY	PRODUCT	PROCESSING				INDICATION							
			Brush /immersion technique	Staining technique	Cutback technique	Layering technique	Veneer	Inlay	Onlay	Anterior and posterior crown	3-pontic bridge (incl. molar region)	Multi-pontic bridge	Hybrid abutment	Hybrid abutment crown
Bright	SHT	Zolid FX Multilayer	○	○	○		○	○	○	○	○			○
		Zolid FX White	○	○	○	○	○	○	○	○	○			○
Bright – slightly discolored	SHT HT+	Zolid Bion	○	○	○	○	○	○	○	○	○	○	○	○
Bright – slightly discolored	HT+	Zolid Gen-X Multilayer	○	○	○	○		○	○	○	○	○	○	○
		Zolid HT+ Preshades	○	○	○	○		○	○	○	○	○	○	○
		Zolid HT+ White	○	○	○	○		○	○	○	○	○	○	○
		Zolid DRS Multilayer	○	○	○	○	○	○	○	○	○		○	○
Bright – discolored/metal	LT	ZI White	○			○				○	○	○	○	○

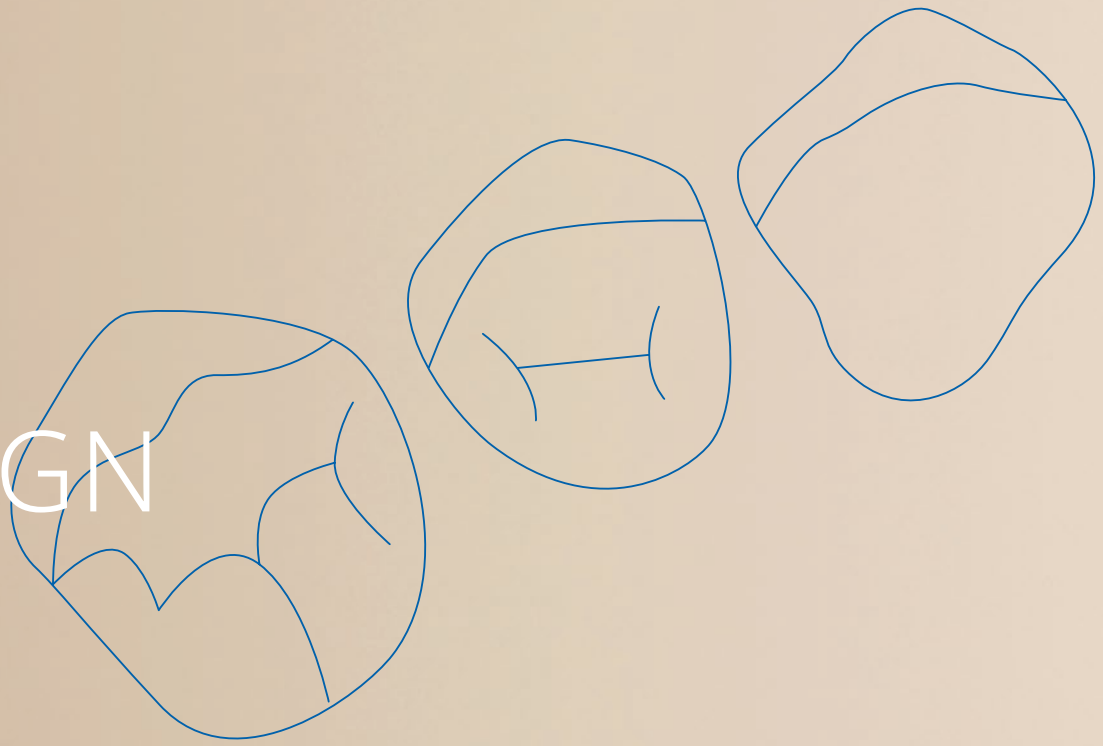
RECOMMENDATIONS FOR USE OF AMANN GIRRBACH ZIRCONIUM OXIDE IN TERMS OF STUMP SHADE AND DEGREE OF TRANSLUCENCY



- **LT** / ZI
- **HT+** / Zolid Gen-X, Zolid HT+ White, Zolid HT+ PS, Zolid DRS
- **SHT/HT+** / Zolid Bion
- **SHT** / Zolid FX White, Zolid FX ML

Zolid Bion / Amann Girrbach

CAD/CAM DESIGN



The foundation for good success

CAD/CAM Design

During the CAD/CAM design of crowns and bridges certain parameters already have to be considered. Only this guarantees the long-term clinical success of Zolid restorations.

STUMP PREPARATIONS

Some important points apply when using a model (plaster, CAD/CAM fabricated model).

Tips & important notes

- ✓ Use scannable plaster or CAD/CAM model material
- ✓ Never mark the preparation margin with a pencil before scanning, this will lead to a deterioration of the scanning results
- ✓ Sharp edges should be blocked out in the CAD software. The cement gap can be increased specifically with the help of the brush instrument (see video "Additional distance brush")

MINIMUM WALL THICKNESSES AND CONNECTOR CROSS-SECTION

It is essential to observe the following minimum wall thicknesses and connector cross-sections when designing Zolid restorations. Minimum wall thickness and connector cross-section depend on the material and indication.

MATERIAL PARAMETERS FOR ZOLID SHT / HT+ / LT – UP TO MAX. 3-PONTIC BRIDGE

INDICATION	ANTERIOR REGION				POSTERIOR REGION			
	Wall thickness (mm)		Connector cross-section SHT	Connector cross-section HT+/LT	Wall thickness (mm)		Connector cross-section SHT	Connector cross-section HT+/LT
	incisal/ occlusal	circular			incisal/ occlusal	circular		
Single tooth	0.5	0.5	-	-	0.5	0.5	-	-
3-pontic bridges and 1 pontic	0.5	0.5	>12	>7	0.7	0.5	>12	>9

MATERIAL PARAMETERS FOR ZOLID HT+ / LT – UP TO 14-PONTIC BRIDGE*

INDICATION	ANTERIOR REGION			POSTERIOR REGION		
	Wall thickness (mm)		Connector cross-section HT+/LT	Wall thickness (mm)		Connector cross-section HT+/LT
	incisal/occlusal	circular		incisal/occlusal	circular	
As of a 4-pontic bridge and a maximum of 2 pontics	0.7	0.5	>9	1.0	0.7	>12
As of a 4-pontic bridge and a maximum of 3 pontics	0.7	0.5	>9			
Cantilever bridge and one cantilever pontic				1.0	0.7	>12

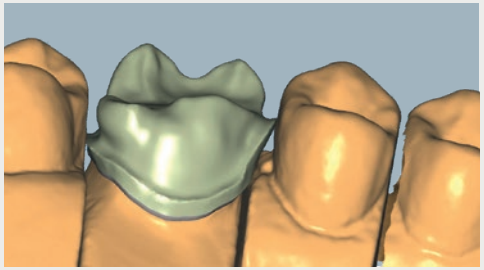
▷ More information in the video "Additional distance brush"
bit.ly/450WWth

* Excluded Zolid DRS
SHT = Zolid FX, Zolid FX Multilayer | HT+ = Zolid HT+, Zolid HT+ Preshade, Zolid Gen-X, Zolid DRS, Zolid Bion | LT = ZI

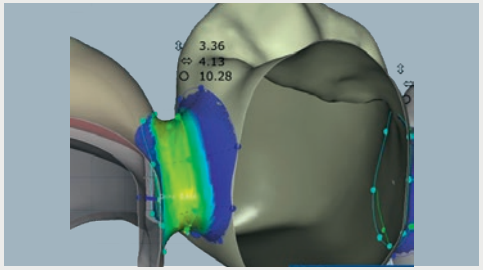
Clean data sets lead to success

Design of the restorations

In addition to minimum wall thickness and connector cross section, which must be strictly complied with during the fabrication of Zolid restorations, it is essential to also observe other points:



Supportive design in the area of the cusps and the proximal contact for the subsequent veneering ceramic.



Display of an optimal connector cross-section

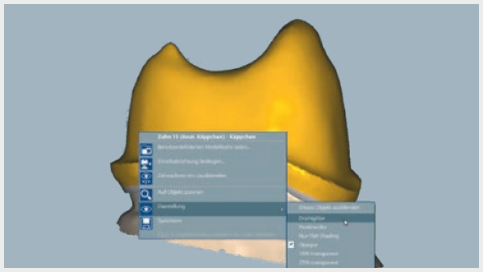
Tips & important notes

- ✓ Avoid sharp edges and corners during restoration design
- ✓ Smooth sharp edges again after the function “Shrinking the anatomy”
- ✓ Cusp-supporting design for later use of veneering ceramics
- ✓ Support of the veneering ceramic is also recommended for proximal contacts (see video “Garland proximal saddle”)
- ✓ The transition from the connector to the abutment crown should be kept as wide as possible

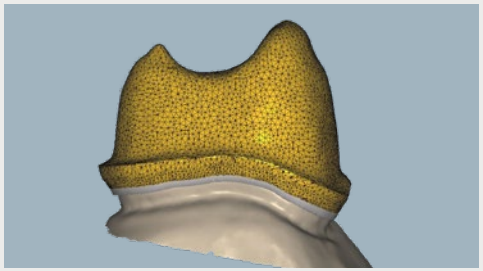
More information in the video “Garland proximal saddle”
bit.ly/3OlCwoG

TIPS FOR A “CLEAN” DATA SET

To give precise milling results, “clean” STL data sets should be generated and transferred to the CAM software. Once the final design has been defined, the following steps should be followed.



Change display to “wireframe”



- Select the “Smooth” function in the free-form area
- Reduce the amount of smoothing
- Then smooth the surface of the restoration such that the grid surface is as small and even as possible (see video “Adding the wireframe”)

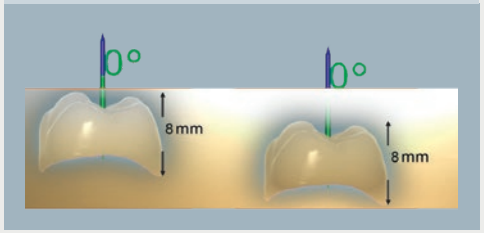
More information in the video “Adding the wireframe”
bit.ly/42BNWZS

Maintaining proportions

Nesting of Multilayer blanks

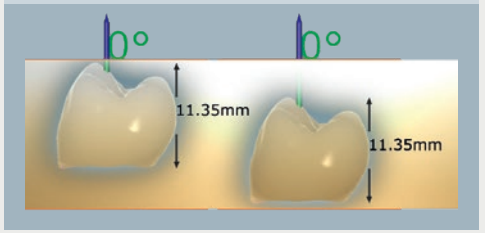
Depending on the nesting position, a total of two tooth shades per blank can be covered with the Zolid FX Multilayer blanks. A few aspects need to be taken into account to ensure that the shade gradient is optimally matched. The choice of the correct blank height in proportion to the restoration height is decisive for success.

14 mm



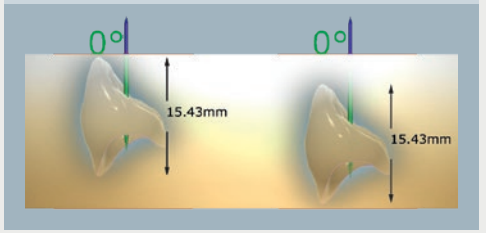
Perfect for restorations with the following heights: approx. 6-8 mm

16 mm



Perfect for restorations with the following heights: approx. 9-12 mm

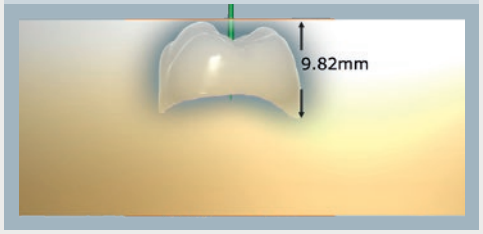
20 mm



Perfect for restorations with the following heights: approx. 13-16 mm

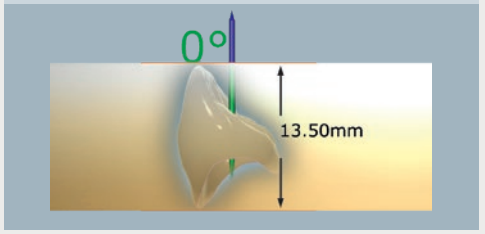
The following applies in general to the nesting of Zolid Bion, Zolid Gen-X and Zolid FX Multilayer blanks: under no circumstances should too low restorations be nested in too high blanks and vice versa, as otherwise the correct coloration with the desired color gradient will not be achieved.

A low restoration nested in a blank that is too high, e.g. 20 mm



The shade gradient is not present over the whole crown. The tooth shade appears too bright.

A high restoration nested in a blank that is too low, e.g. 14 mm



The restoration cannot be shifted. The tooth shade appears too dark.

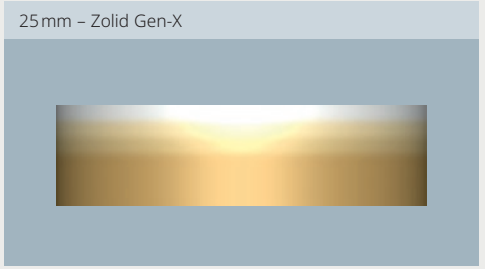
WHEN NESTING RESTORATIONS IN A TYPE ZOLID GEN-X/BION 25 BLANK PLEASE OBSERVE THE FOLLOWING:

Upper half of the blank: Color distribution corresponds to that of a type 16 mm blank

Lower half of the blank: No color distribution, but fully stained (Preshade)

Restorations with a gingival section should therefore be nested such that only the gingival section lies in the lower, fully stained half of the blank.

25 mm – Zolid Gen-X



Zolid zirconia ready to meet different requirements

Magnification factor

To compensate for volume shrinkage during the sintering process, restorations made of Zolid zirconia and Ceramill Sintron are always fabricated with a certain allowance. This is defined by entering the so-called magnification factor in the CAM software.

There are various CAM software systems on the market, all of which require different values to be entered. To meet the various requirements, the Zolid zirconia blanks are marked with the following three specifications for the magnification factor:

F-VALUE				V–VALUE				S–VALUE			
Special Amann Girrbach magnification factor, only relevant for Amann Girrbach customer/fabrication systems				General magnification factor, given as factor for entry in CAM software				Special magnification factor, very rare – relevant e.g. for Zirkonzahn system			
Zolid Gen-X				Zolid Gen-X				Zolid Gen-X			
A2 98x16	F 10.27	V1.233	S 18.94	A2 98x16	F 10.27	V1.233	S 18.94	A2 98x16	F 10.27	V1.233	S 18.94

Note: the magnification factors shown are only exemplary values which are not generally valid.

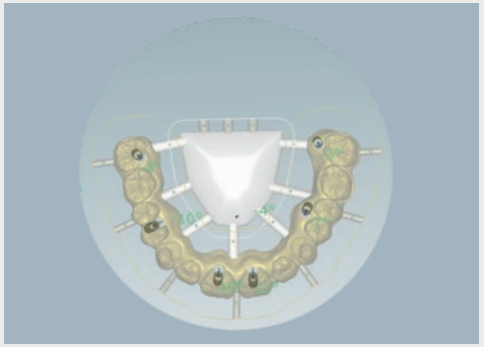
For the perfect fit

Sintering support structures

To avoid problems of distortion and fit, large span bridges should always be sintered with a supporting structure. The following bridge constructions require a sintering support structure under all circumstances:

- Bridge constructions with more than 9 pontics
- Bridge constructions with a pronounced curvature, such as anterior tooth bridges

Selection of a suitable sintering block



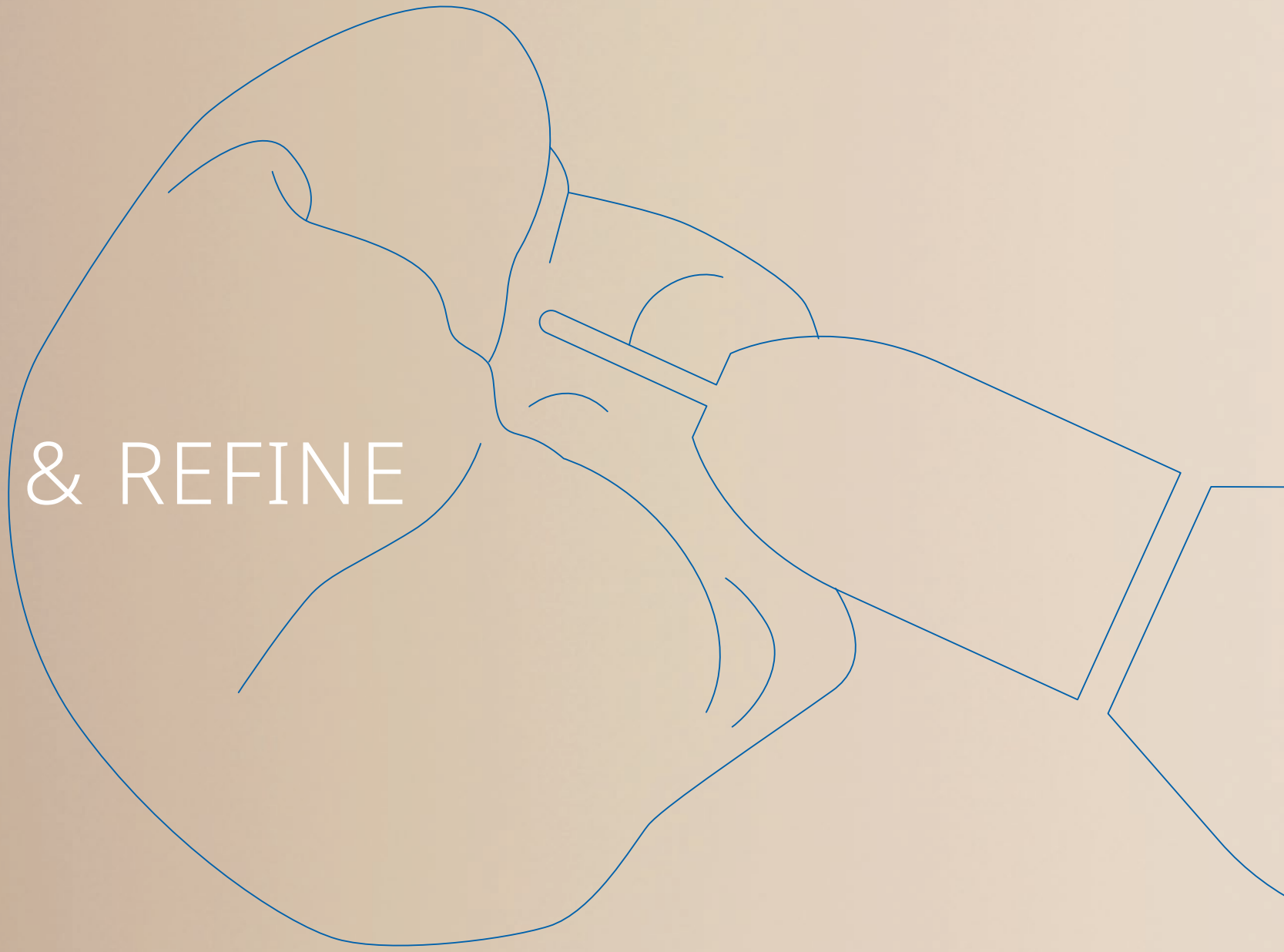
The connectors should be arranged as symmetrically as possible

Tips & important notes

- ✓ For the support structure, the “dynamic stabilizer” is selected in the CAM software
- ✓ The terminal bridge pontics must be connected to the sintering block via connectors
- ✓ The number of connectors between the sintering block and the bridge should be at least four
- ✓ The connectors should be arranged as symmetrically as possible
- ✓ The connectors should preferably be positioned between the pontics and the sintering block
- ✓ The connectors to the sintering block should be at least 3 mm thick
- ✓ In the staining technique with liquids, the attachment point of the connector in particular must be stained to a greater extent to ensure that no unstained areas remain after subsequent separation. The sintering support structure must not be stained, as heating could then lead to cracks.

The number of connectors between the sintering block and the bridge should be at least four.

REMOVE & REFINE

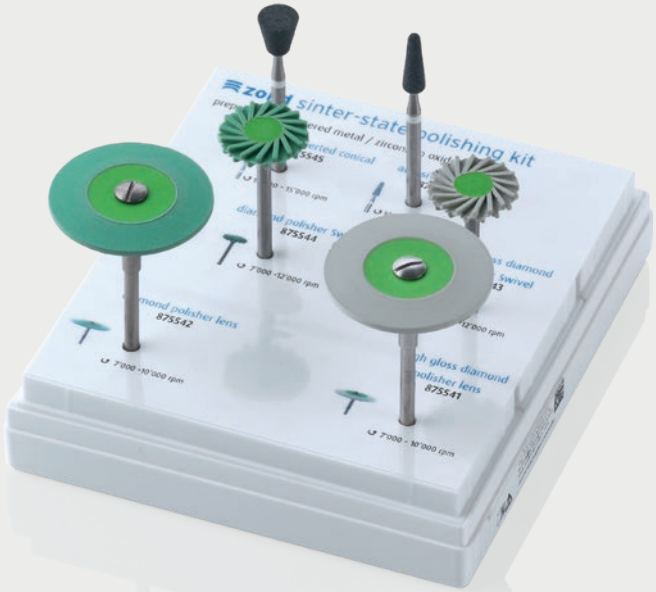


Product recommendations for the perfect finish

Finishing

To prevent damage to the material, correct finishing is essential after the milling process.
Here a distinction is made between finishing before sintering and finishing after sintering.
The choice of suitable instruments is crucial for success.

Green-State Finishing Kit for finishing zirconia restorations before sintering.



Sinter-State Polishing Kit for finishing zirconia restorations after sintering.

Polishing paste for final high gloss polishing

Step-by-Step

Finishing before sintering

The final material properties have not yet been attained in the white blank state, therefore the milling objects should be handled very carefully. The following basic rules should be observed:

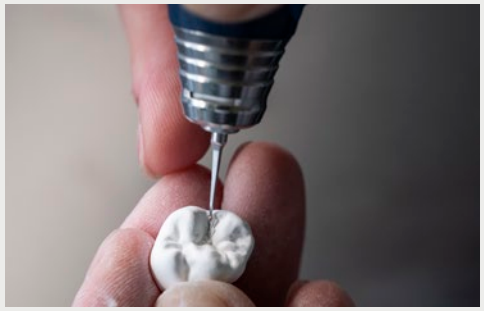
Using the “milling cutter” special tool, the restoration can be separated gently in circular movements.

Coarse grinding of the connectors with the Grenade

Fine grinding of the connectors

Tip: marking the preparation margin with a wax crayon facilitates thinning of the crown margin before sintering

Thinning the margins with the fine universal polisher



The fissure milling cutter enables extremely fine fissures to create a natural morphology.

Tips & important notes

- ✓ Never fall below minimum wall thicknesses and connector cross-sections
- ✓ If possible, all steps for prepara--tion should be carried out before sintering to prevent damage in the material
- ✓ Separate objects from the blank with care and caution. Gently sever the connectors with circular movements. Avoid the formation of wedges
- ✓ Use a turbine or a well-maintained handpiece for separation, avoid any unbalance
- ✓ After finishing, the milled objects should be thoroughly cleaned of any adhering milling dust. Met-al-free brushes and oil-free com-pressed air are suitable for this purpose
- ✓ If the surface of the whites is polished too much, this can lead to poorer absorption of the staining liquid.

▷ More information in the video “Processing before sintering”
bit.ly/3MuXtwg

Step-by-Step

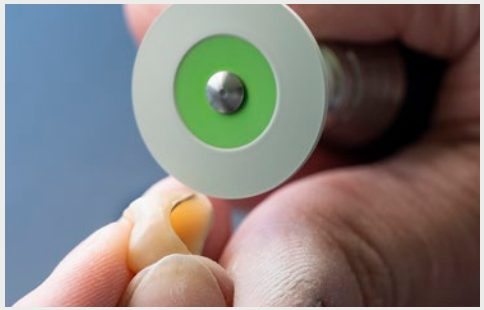
Finishing after sintering

To prevent damage to the material, correct finishing is essential after sintering.
Here, the choice of suitable instruments is also crucial for success.

Gentle grinding of the occlusal contacts

Polishing “Lens” or “Swivel”

Tip: The “Swivel” is ideal for difficult to access areas such as fissures, cusps or interdental areas.



High-gloss polishing “Lens” or “Swivel”

Polishing paste for final high gloss polishing

Tips & important notes

- ✓ Processing should be kept to a minimum after sintering
- ✓ Only apply slight pressure
- ✓ Restrict heat generation to a minimum
- ✓ Only use suitable tools
- ✓ If possible finish under water cooling
- ✓ Never re-separate the bridge units with a cutting disc, this applies in particular to the basal areas (tensile stress)
- ✓ All contact points (occlusal & proximal) should always be polished to a high gloss with a multi-stage polishing system to prevent abrasion of the antagonist.

More information in the video “Processing after sintering”
bit.ly/3o4CQxC

INTERNAL FINISH

Tips and Tricks

Processing of liquids

The following information about immersion times and brush applications are only approximate values and depend on numerous factors. These need to be adjusted individually depending on the workflow and preferences. When using staining liquids for coloring before sintering, some tips can prove to be very useful.

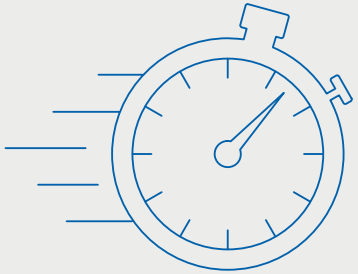
Tips & important notes

- ✓ Remove the remaining zirconium dust from the frames with a brush and compressed air
- ✓ Only work with metal-free brushes with synthetic hair
- ✓ Do not use too much Ceramill Liquid Eye, as this can lead to a thinning of the A-D shade
- ✓ Completely dry the restorations before sintering (see page 23 on the subject)
- ✓ Do not mix Ceramill Liquid with another Ceramill Liquid System.
  The staining liquids may only be combined within one liquid system.

Zirconia Stain Brush Kit – available in three different sizes for targeted application of the staining liquids with Liquid Eye. The brushes are metal-free and the synthetic brush hair is easy to clean.

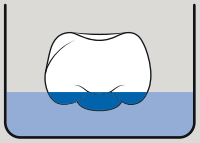
Rapid staining technique

Fasthetix



The “Fasthetix concept” allows preparing esthetic restorations with a color gradient in just a few seconds using only a single “Ceramill Liquid new formula” liquid set. The uncomplicated Fasthetix method is the perfect entry into the world of the Amann Girrbach zirconium oxides.

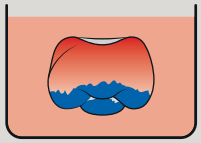
FASTHETIX BASIC
Immersion technique



Immersion in Dimmer Liquid for approx. 2-4 s

FASTHETIX ADVANCED
Combination brush and immersion technique

Apply Dimmer Liquid with brush



Immerse in Liquid A-D 10-30 s

Tips & important notes

- ✓ For the tooth shades A4, B4, C4 and D4 in combination with Zolid HT+ and Zolid FX the immersion time should be extended to 45-60 seconds to achieve the corresponding tooth shade
- ✓ Instead of Dimmer Liquid, a mixture of dimmer/effect stain grey/violet can be used in the ratio 15/15/70. This lends the incisal/cusp area a natural appearance
- ✓ The intensity of the incisal effect depends on the depth of immersion in the Dimmer Liquid or in the mixture of effect stains respectively

When using CL1-CL4 shades for ZI, please follow the Instructions for Use for Ceramill Liquids CL1-CL4.

▷ More information in the video “Fasthetix Basic”
bit.ly/456jo44

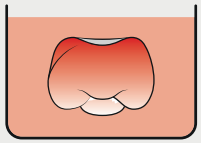
▷ More information in the video “Fasthetix Advanced”
bit.ly/41EBcAo

Highly esthetic individualization

Aesthetix Basic

In addition to the dentin liquids specifically developed for each translucency stage and special color shades for customization, the “Aesthetix concept” offers mature immersion and brush techniques. These are ideally suited for simple and fast monochrome staining of frames which are subsequently veneered.

AESTHETIX BASIC
Immersion technique

MATERIAL	PROCESSING		IMMERSION TIME
Zolid FX White	90 % Liquid FX	10 % Dimmer	 Immersion time 10 seconds
Zolid HT+ White	100 % Liquid “new formula”		
ZI White	100 % Liquid “new formula”		

Doubling the immersion time is recommended for dark shades (A4, B4, C4, D4).

Pretreatment of the bridge unit through immersion technique

Prior to immersion, it is recommended to apply Dimmer Liquid at least once evenly with a brush to the solid pontic to obtain a shade of the pontic after immersion which is not too intensive.

When using CL1-CL4 shades for ZI, please follow the Instructions for Use for Ceramill Liquids CL1-CL4.

More information in the video “Aesthetix Basic”
bit.ly/3OfZM7S

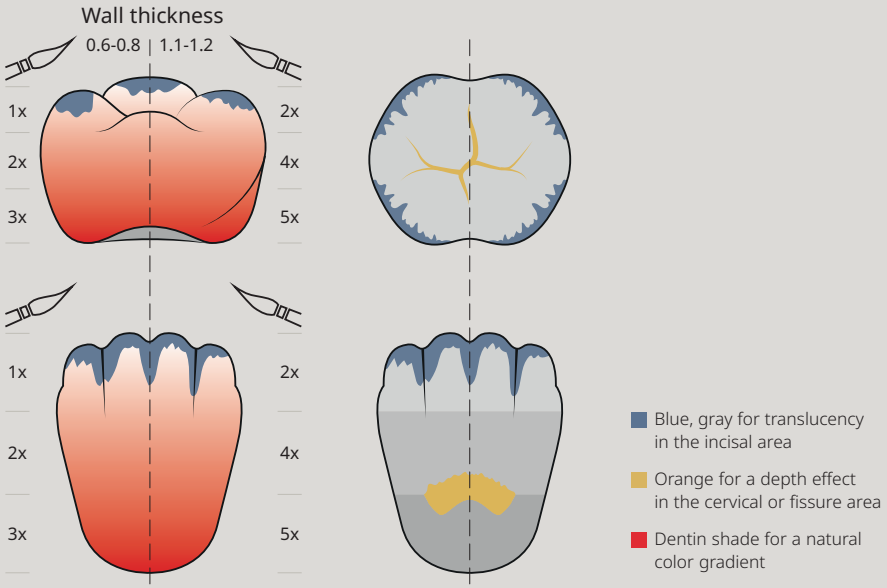
Staining with dentin and effect stains

Aesthetix Advanced

Ideal for staining monolithic restorations. For very individual results, the effect stains can be used to set specific highlights.

AESTHETIX ADVANCED

Brush technique



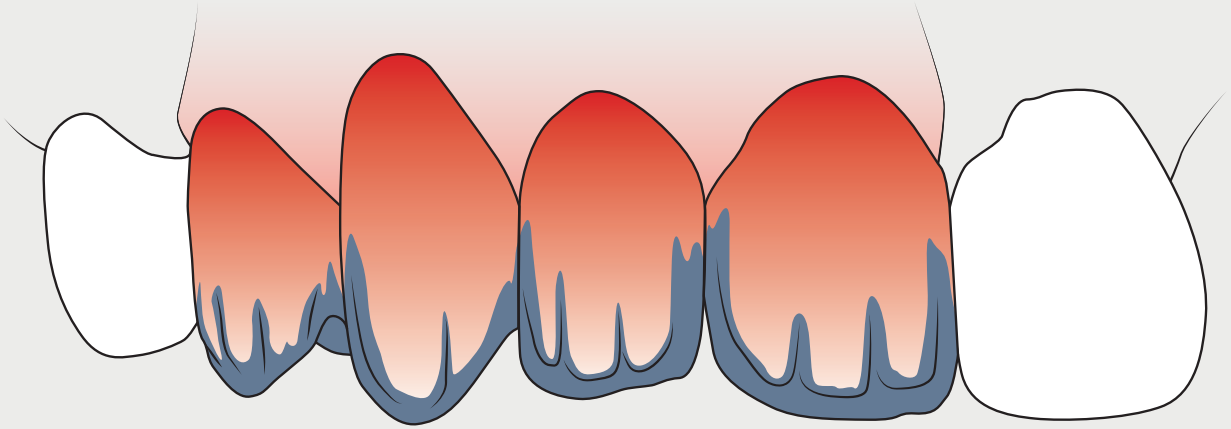
More information in the video “Aesthetix Advanced”
bit.ly/3MtVJmO

Pretreatment of the bridge unit through brush technique

To provide sufficient shade intensity to the solid pontic, it is recommended to apply one additional drop of dentin to the basal pontic surface per brush application, depending on the size of the pontic.

Pre-drying and long-term cooling for perfect results

Staining with gingiva section



PRE-DRYING

After staining with Ceramill Liquid, Zolid zirconium oxide should be pre-dried. This acts to avoid stains (homogenization). The risk of cracks and fissures is also reduced for large objects.

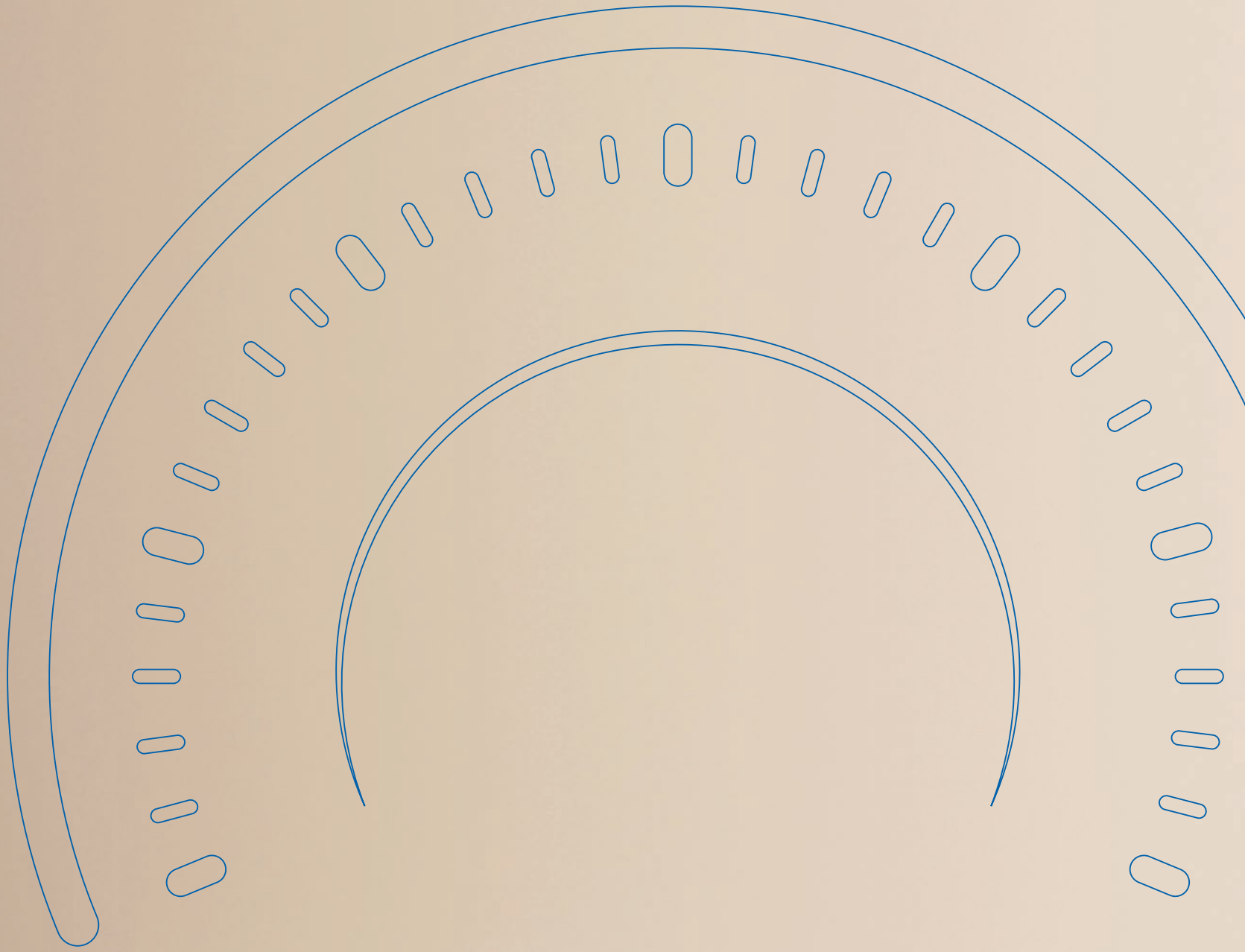
MATERIAL	PRE-DRYING TEMPERATURE	PRE-DRYING DURATION
Zolid zirconium oxide frames (without sintering block)	80 °C	60 min

Tips & important notes

- ✓ Always start with the application of Dentin Liquid on the teeth, this prevents Gingiva Liquid from infiltrating the teeth
- ✓ Apply Gingiva Liquid in the second step. Depending on the material thickness, 3-5 applications are sufficient for a satisfying pink basic shade
- ✓ Dry restorations sufficiently long before sintering or select sintering programs with a pre-drying function
- ✓ When sintering such restorations, always select programs with long-term cooling to avoid thermal stress

When using CL1-CL4 shades for ZI, please follow the Instructions for Use for Ceramill Liquids CL1-CL4.

SINTERN



Perfectly matched

Sintering of Zolid restorations

Sintering of zirconia is one of the most important process steps in the fabrication of dental restorations. The porous white body condenses under the influence of high temperatures and the blank achieves its final mechanical (strength) and optical (translucency) properties. The standardized sintering temperature of 1450 °C ensures efficient processes. This allows ZI, Zolid HT+, Zolid Gen-X or Zolid FX to be sintered together in a single furnace run. Optimum results are achieved with the Ceramill Therm, Therm S and Therm DRS high-temperature furnaces from Amann Girrbach. These are fully matched to the Zolid portfolio and thus achieve the best possible material properties.

Note: Zolid Bion, unlike the other Zolid zirconias, must be sintered at a temperature of 1500 °C. This is the only way to achieve the best possible esthetic results of the material.

	MATERIAL	SINTERING FURNACE	INDICATION	SINTERING PROGRAM	TIME (APPROX.)
CONVENTIONAL	Zolid Bion Zolid Gen-X Ceramill Zolid HT+ White Ceramill Zolid HT+ Preshade Ceramill Zolid FX White Ceramill Zolid FX Multilayer Ceramill ZI	Ceramill Therm Ceramill Therm 3 Ceramill Therm S	Crowns & bridges	Programm 1 (P1) - standard	8 h
			Single restoration	Programm 2 (P2) - fast	6 h
			Large/solid restoration (with sintering block)	Programm 3 (P3) - slow	10 h
			Sintering program with pre-drying - recommended for large/solid restoration (with sintering block)	Programm 4 (P4)	14 h
		Ceramill Therm S (optional)	Crowns & bridges	Programm 1 (P1) - standard	4.5 h
			Single restoration	Programm 2 (P2) - fast	3 h
			Large/solid restoration (with sintering block) <14 pontic	Programm 3 (P3) - slow	6.5 h
SPEED	Zolid Gen-X Ceramill Zolid HT+ White Ceramill Zolid HT+ Preshade Ceramill Zolid FX White Ceramill Zolid FX Multilayer Ceramill ZI	Ceramill Therm S Ceramill Therm DRS	up to 3-unit bridges	Programm 9 (P9) Ceramill Zirconia Speed 2h	2 h
HIGH-SPEED	Zolid DRS Zolid Gen-X	Ceramill Therm DRS	up to 3-unit bridges	Programm 1 (P1) Zolid DRS - C&B Dry milled	28 min
				Programm 2 (P2) Zolid DRS - C&B - Wet (Autodry)	31 min
			Single restoration	Programm 3 (P3) Zolid DRS - Single C - Dry milled	21 min
				Programm 4 (P4) Zolid DRS - Single C - Wet (Autodry)	25 min
	Zolid Bion			Programm 5 (P5) Zolid Bion - Single C - Dry milled	45 min
				Programm 6 (P6) Zolid Bion - Single C - Wet (Autodry)	49 min
	Zolid DRS Zolid Bion Zolid Gen-X		up to 3-unit bridges	Programm 7 (P7) Zolid Gen-X/DRS/Bion 1h - C&B - Dry milled	60 min
				Programm 8 (P8) Zolid Gen-X/DRS/Bion 1h - C&B - Wet (Autodry)	60 min

Further information on the different sintering programs of the Ceramill Therm DRS can be found in the document: **Ceramill Therm DRS Program Overview**

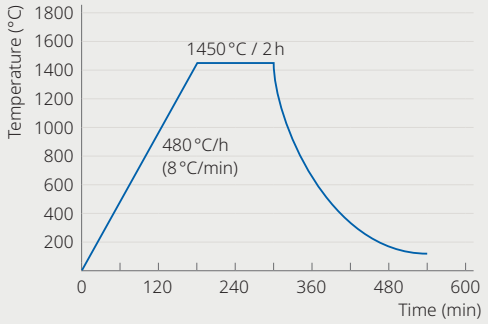
For perfect results

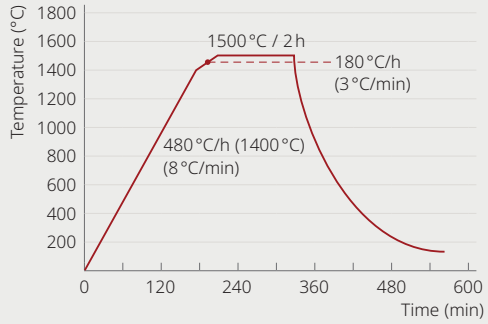
Sintering programs

SINTERING PROGRAM 1 (STANDARD)

Crowns and bridges

PHASE	TEMPERATURE 1	TEMPERATURE 2	HEATING RATE	HOLDING TIME
Heating phase	20 °C	1450 °C	8 °C/min	–
Holding phase	1450 °C	1450 °C	–	120 min
Heating phase	20 °C	1400 °C	8 °C/min	–
Heating phase	1400 °C	1500 °C	3 °C/min	–
Holding phase	1500 °C	1500 °C	–	120 min

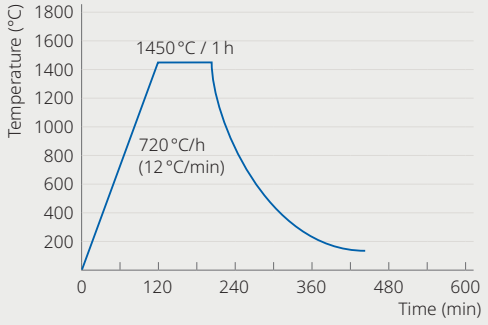


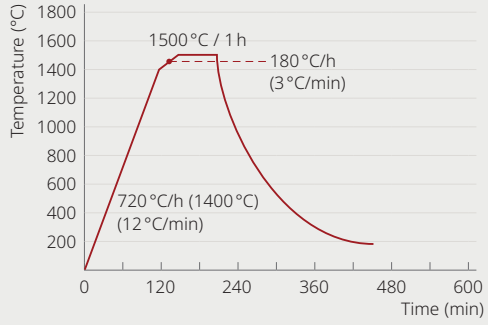


SINTERING PROGRAM 2 (SHORT DURATION)

Only permissible for single tooth restorations

PHASE	TEMPERATURE 1	TEMPERATURE 2	HEATING RATE	HOLDING TIME
Heating phase	20 °C	1450 °C	12 °C/min	–
Holding phase	1450 °C	1450 °C	–	60 min
Heating phase	20 °C	1400 °C	12 °C/min	–
Heating phase	1400 °C	1500 °C	3 °C/min	–
Holding phase	1500 °C	1500 °C	–	60 min



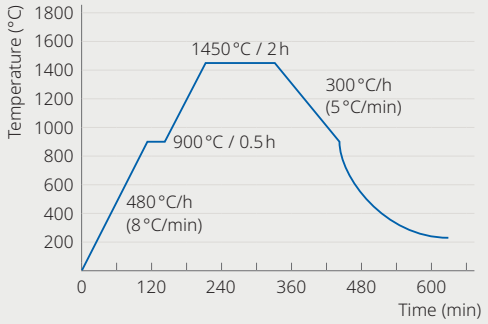


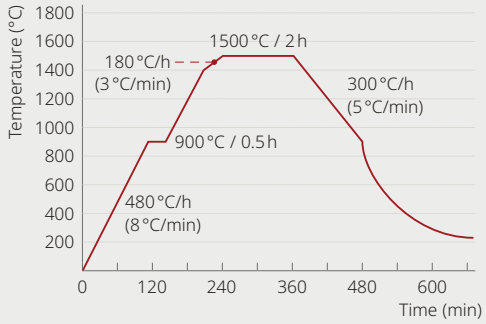
Ceramill ZI, Zolid FX, Zolid FX Multilayer, Zolid Gen-X, Zolid HT+ White, Zolid HT+ Preshade
Zolid Bion

SINTERING PROGRAM 3 (WITH LONG-TERM COOLING)

Recommended for large/solid restorations (with sintering block)

PHASE	TEMPERATURE 1	TEMPERATURE 2	HEATING RATE	HOLDING TIME
Heating phase	20 °C	900 °C	8 °C/min	–
Holding phase	900 °C	900 °C	–	30 min
Heating phase	900 °C	1450 °C	8 °C/min	–
Holding phase	1450 °C	1450 °C	–	120 min
Cooling phase	1450 °C	900 °C	5 °C/min	–
Heating phase	20 °C	900 °C	8 °C/min	–
Holding phase	900 °C	900 °C	–	30 min
Heating phase	900 °C	1400 °C	8 °C/min	–
Heating phase	1400 °C	1500 °C	3 °C/min	–
Holding phase	1500 °C	1500 °C	–	120 min
Cooling phase	1500 °C	900 °C	5 °C/min	–

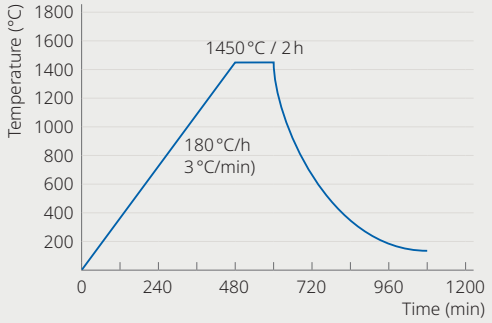


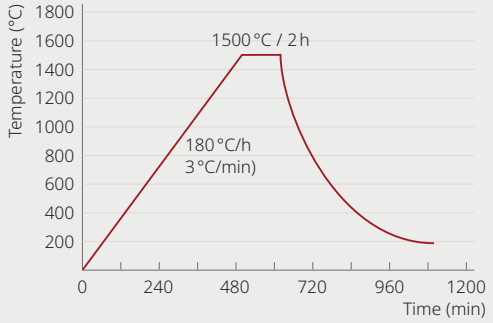


SINTERING PROGRAM 4 (WITH PRE-DRYING)

Recommended for large/solid restorations (with sintering block), for example, infiltrated with staining liquids.

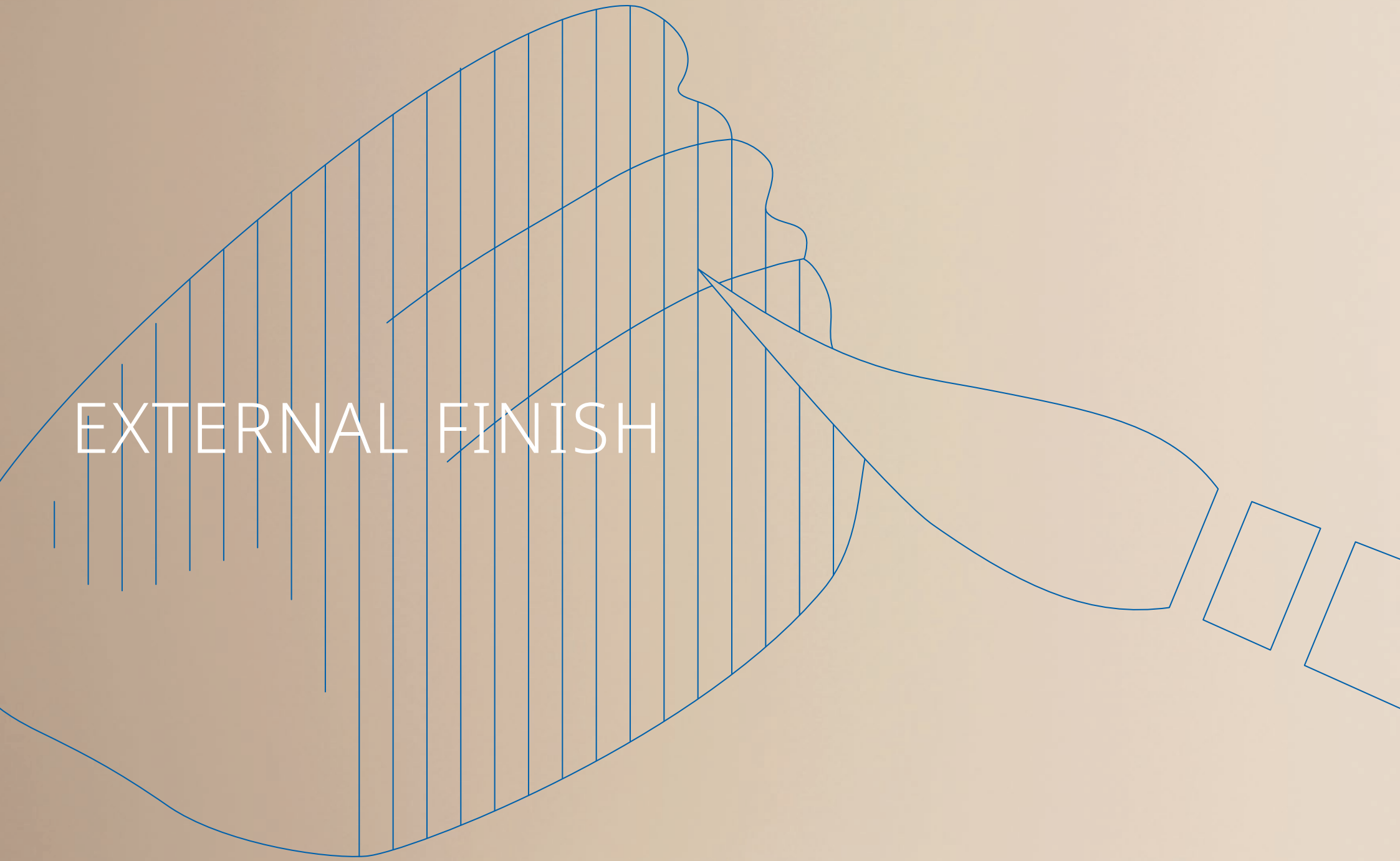
PHASE	TEMPERATURE 1	TEMPERATURE 2	HEATING RATE	HOLDING TIME
Heating phase	20 °C	1450 °C	3 °C/min	–
Holding phase	1450 °C	1450 °C	–	120 min
Cooling phase	1450 °C	900 °C	5 °C/min	–
Heating phase	20 °C	1400 °C	3 °C/min	–
Holding phase	1500 °C	1500 °C	–	120 min
Cooling phase	1500 °C	900 °C	5 °C/min	–





Ceramill ZI, Zolid FX, Zolid FX Multilayer, Zolid Gen-X, Zolid HT+ White, Zolid HT+ Preshade
Zolid Bion

EXTERNAL FINISH

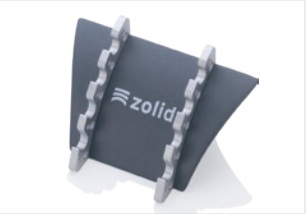


Small helpers with a big impact

Final characterization after sintering

After sintering, Zolid restorations can be further individualized and refined by applying veneering ceramics or stains. Here, too, the choice of the right aids is crucial for success.

The “Optimum” and “Revolution” ceramic brushes are ideally suited for the application of ceramic materials and stains. “Optimum Brush Line” also features a built-in steel spring.



Instrument Bench Stand: the ideal storage unit for the ceramic brushes “Optimum” and “Revolution”.

CAD Artistry Palette with 11 separate compartments for storage and mixing of ceramic materials with optimal consistency.

Honey Comb Stand: the ceramic honeycomb stand for firing Zolid restorations including special ceramic pins for implant restorations.

Crown Holder Complete Kit: provides excellent hold of the restorations during layering or painting. The material does not leave any sticky residue and can be used several times.

Peg Fix: the fire-resistant firing paste made of PCW fibres, is suitable for firing ceramic and metallic restorations with a stable hold during the firing process.

Texture Eyes: the copper paste visualizes the morphology and surface texture of crowns, bridges or plaster models. The quick-drying, alcohol-free solution can be removed easily later on using a steam jet.

Ceramic spatula made of zirconia for optimal and contamination-free mixing of ceramic materials.

Zolid Shade Guide for perfect shade determination for the restoration.

More information in the video “External Finish”
bit.ly/41Afg9v

That individual touch for every restoration

System solution Creation Magic Colour

Magic Colour from Creation is used for accentuating and surface painting of monolithic and partially reduced restorations. Be it from white blanks or work made from Zolid HT+ Preshades, Zolid Gen-X Multilayer or Zolid FX Multilayer or Zolid Bion. Pre-shaded, monochrome restorations in the basic shades made of Zolid HT+ Preshades are finalized after sintering with the staining system to achieve the final tooth shade.

The system consists of the following components:
- Staining powder for the individual coloring of dental and gingival restorations
- Glazing powder with and without fluorescence for sealing surfaces
- A mixing liquid for staining powder
- A special liquid for micro-layering

Tips & important notes

- ✓ Thoroughly clean the restorations before applying stains and glazes, e.g. by blasting with aluminum oxide (recommended grain size: 50-110 µm at max. 1.5 bar).
- ✓ Highlights such as blue, violet or gray can for example be used to individualize areas such as incisal edges and cusp tips.
- ✓ Highlights such as orange or brown can for example be used to individualize areas such as fissures or proximal contacts.

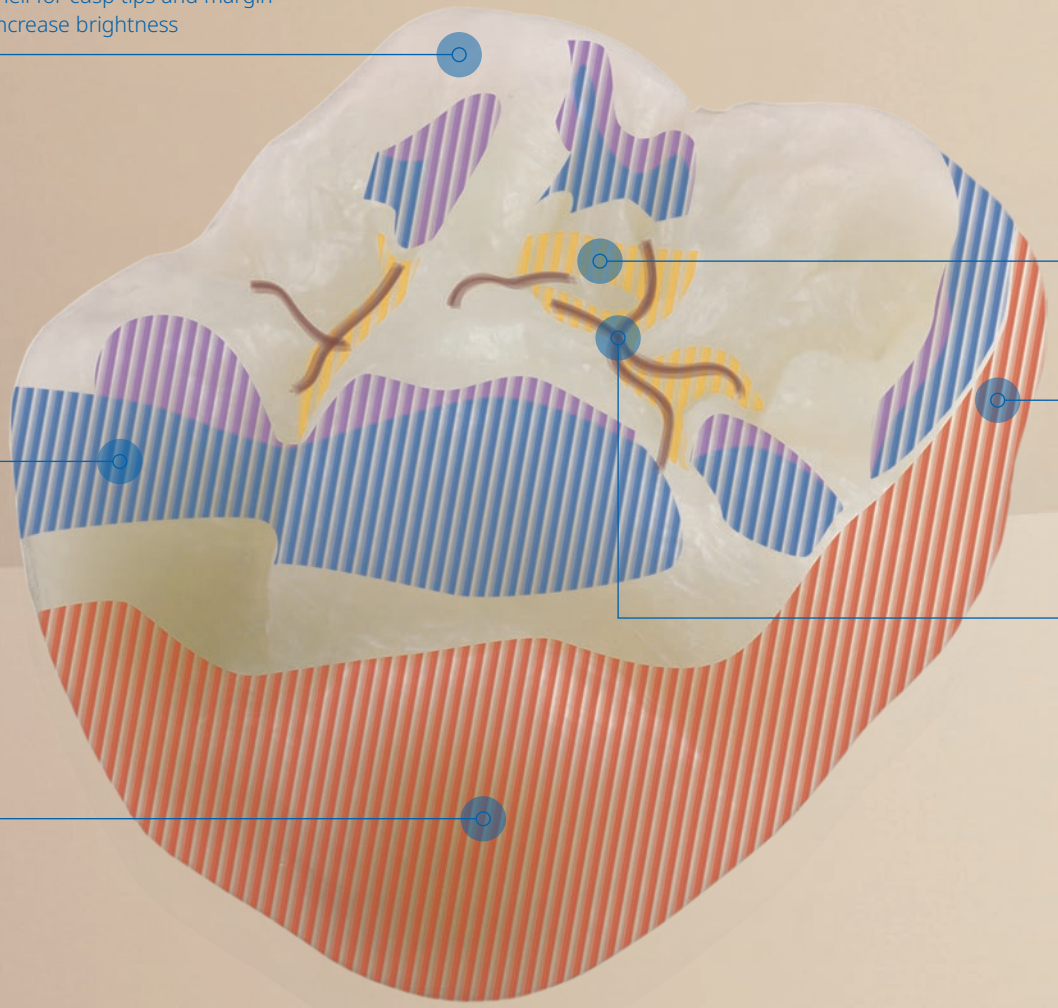
For more information on the use of Creation Magic Colour, you can find the Instruction Manual under the product-specific download area on: www.creation-willigeller.com

HL-2 eggshell for cusp tips and margin ridges to increase brightness

HL-4 mandarine for occlusal surfaces for a warm depth effect/discolorations

HL-11 dove blue for translucency in the cusp and marginal ridge areas

HL-7 light brown/HL-14 fissure in fissure areas for discoloration



Dentine shades A-D for the body region

Special shades, “Gingiva Shades” (GS-1, GS-2, GS-3), for the gingival area also allow restorations to be fabricated with a gingival section.

Important notes on the firing procedure

Creation Magic Colour

The duration of the pre-drying time, the temperature rise, the closing time, the final temperature and the long-term cooling depend on the size of the restoration. Large-volume restorations require longer pre-drying, slower preheating, firing at a higher temperature and slow cooling.

Tips & important notes

- ✓ Magic Colour stains are mixed on a glass or ceramic mixing plate.
- ✓ To achieve better esthetics, the characterizing restoration can be veneered with a thin layer of veneering ceramic (micro-layering).
- ✓ If the desired shade has not been achieved, it can be corrected by firing again

Firing tables for the various indications and application options can be found in the Creation Magic Colour Instruction Manual under the product-specific download section on: www.creation-willigeller.com

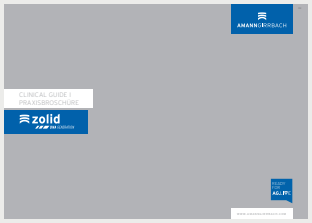
Zolid Bion / Amann Girrbach

TRAINING

More information and training courses

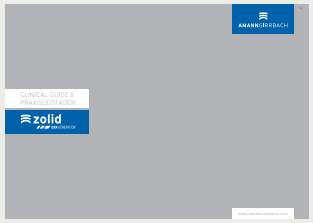
The route to esthetic success

A product is only complete if one knows how to use it correctly. For this reason, Amann Girrbach offers comprehensive information and training within the context of Esthetic Management for the use of the Zolid zirconia product range, to ensure that esthetics are not happenstance. In combination with the individual staining concepts, the didactically prepared print and online media as well as courses ensure the desired outcomes right from the start.



CLINICAL GUIDE I

Practice brochure
All important information about Zolid zirconia.



CLINICAL GUIDE II

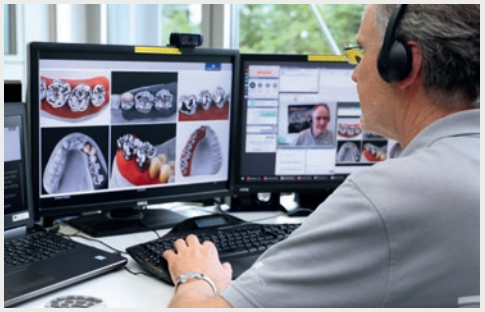
Practice guideline
Preparation, luting, surface polishing

CLINICAL GUIDE III

Scientific compendium
Compendium of Zolid zirconia studies

HANDS-ON COURSES

For perfect esthetics
Precisely targeted processing of the materials is the focus of our courses.



ONLINE WEBINARS

Easy and efficient
Webinars save time and create new opportunities for training and further education. Zolid users can find many fascinating webinars on zirconia in the AG.Academy.

Overview of all videos
youtube.com/@AmannGirrbachHQ ↗

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