

PROCESSING TECHNIQUES



zolid
DNA GENERATION



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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.

	LOW TRANSLUCENCY ZIRCONIA	HIGH TRANSLUCENCY ZIRCONIA	SUPER HIGH TRANSLUCENCY ZIRCONIA
MULTILAYER (with natural tooth shade gradient)			<p>zolid fx multilayer</p> <p>16 A-D VITA SHADES</p>
PRESHADE (pre-stained)		<p>zolid ht+ preshades</p> <p>16 A-D VITA SHADES</p>	<p>zolid fx preshades</p> <p>6 BASIC SHADES</p>
WHITE (white)	<p>zi white</p>	<p>zolid ht+ white</p>	<p>zolid fx white</p>
AESTHETIX	<p>Ceramil Liquid CL</p>	<p>Ceramil Liquid "new formula"</p>	<p>Ceramil Liquid FX</p>
FASTHETIX		<p>Ceramil Liquid "new formula"</p>	

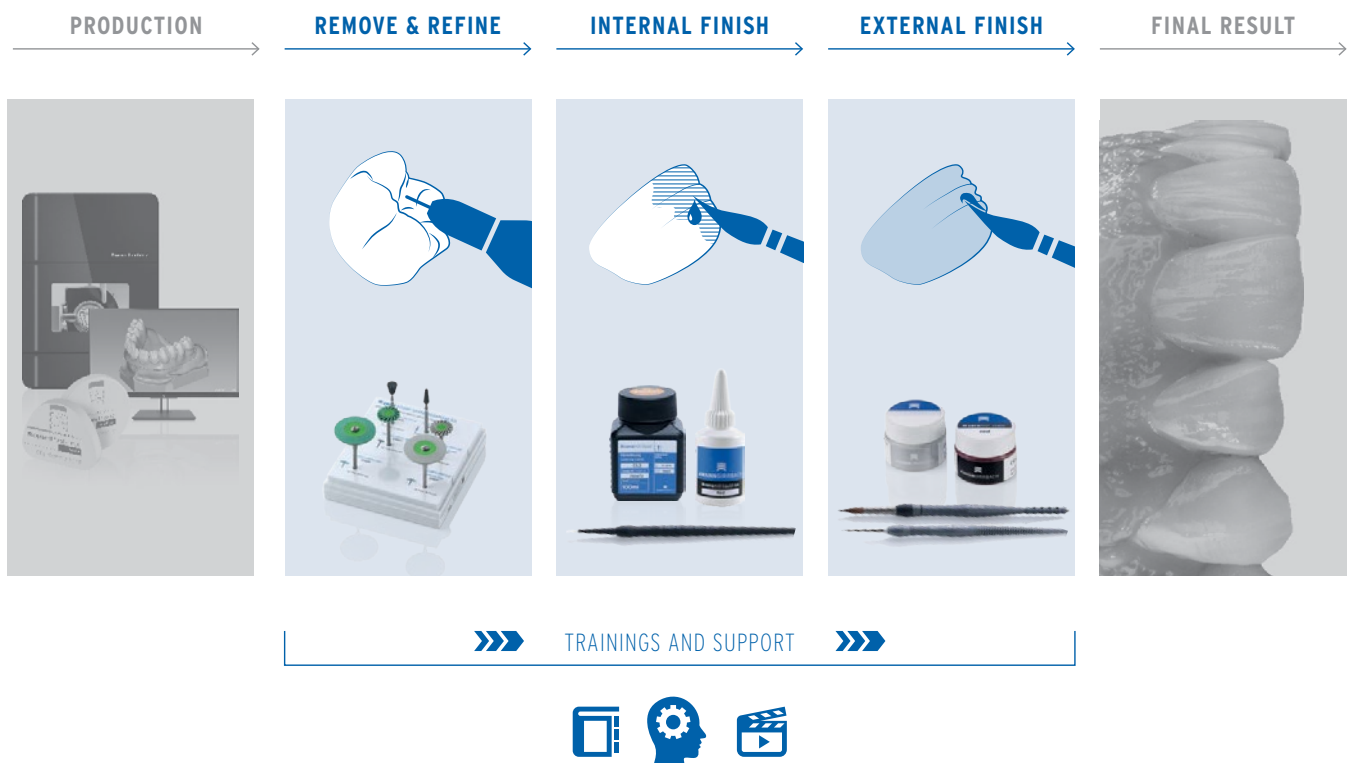
TRANSLUCENCY →

EFFICIENCY →

AS ESTHETICS ARE NOT HAPPENSTANCE

“AG Esthetic Management” makes the fabrication of highly esthetic restorations from zirconium oxide easier than ever before for users of the Zolid system. The new concept includes efficient and reproducible workflows after the milling process, as well as suitable products and aids.

The focus is on simplifying and optimizing all work after milling the restoration. The clearly illustrated instructions for use and 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 zirconium oxide considerably easier for the user.

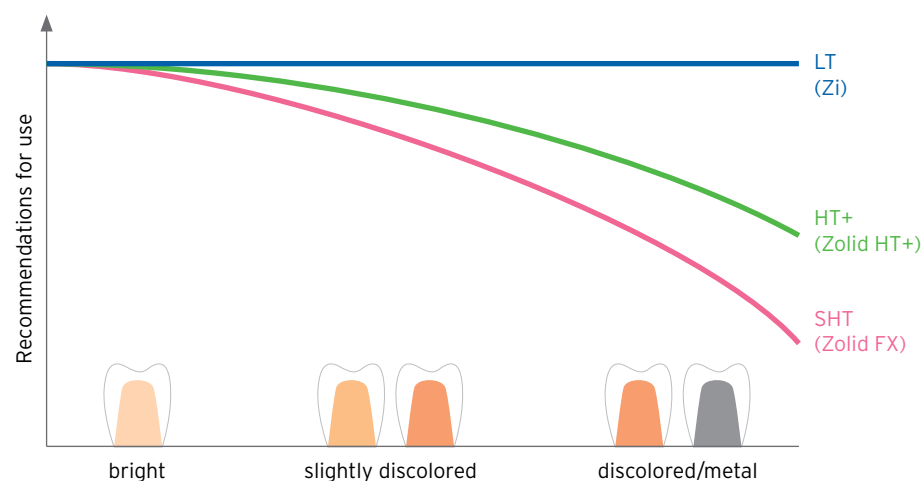


PROCESSING TECHNIQUES AND INDICATIONS

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 Preshades		○	○	○	○	○	○	○	○			○
		Zolid FX White	○	○	○	○	○	○	○	○	○			○
Bright - slightly discolored 	HT	Zolid HT+ Preshades		○	○	○				○	○	○	○	○
		Zolid HT+ White	○	○	○	○				○	○	○	○	○
Bright - discolored/metal 	LT	ZI White	○			○				○	○	○	○	○

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



CAD/CAM DESIGN

Stump preparation

Minimum wall thickness

Restoration design

Data set-tips

Nesting Zolid FX Multilayer

Magnification factor

Sintering support structures



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).

- _ 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")

TIP



More information in the 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

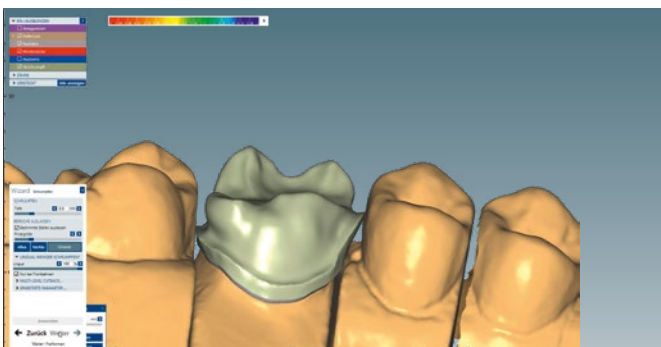
INDICATION	ANTERIOR REGION			POSTERIOR REGION		
	Wall thickness (mm)		Connector cross-section HT/LT	Wall thickness (mm)		Connector cross-section HT/LT
	incisal/occlusal	circular		incisal/occlusal	circular	
As of a 4-pontic bridge and a maximum of 2 pontics	0.7	0.5	> 9	1.0	0.7	≥ 12
As of a 4-pontic bridge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

SHT = Zolid FX, Zolid FX Preshade, Zolid FX Multilayer | **HT** = Zolid HT+, Zolid HT+ Preshade | **LT** = ZI

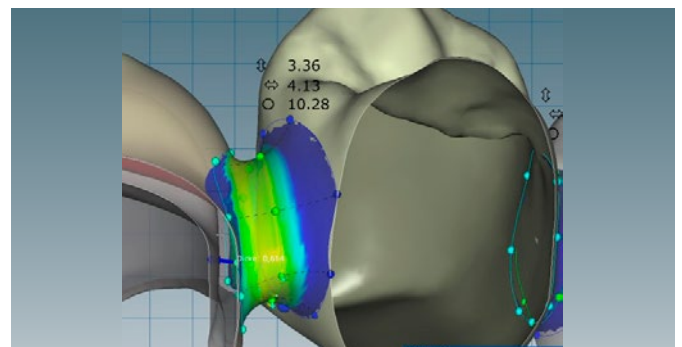
DESIGN OF THE RESTORATIONS

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:

- _ 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



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



Display of an optimal connector cross-section

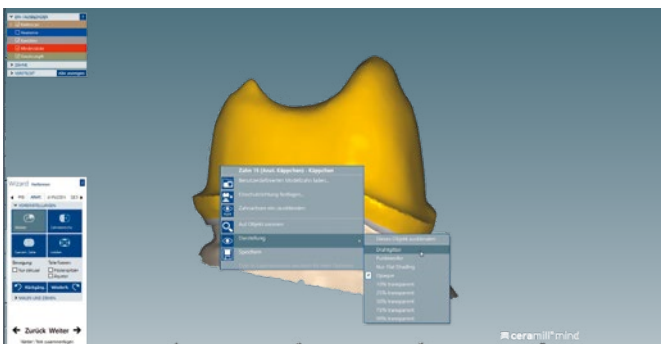
TIP



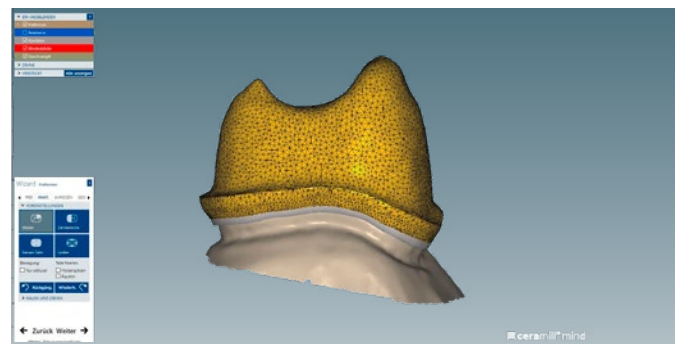
More information in the video **"Garland proximal saddle"**

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")

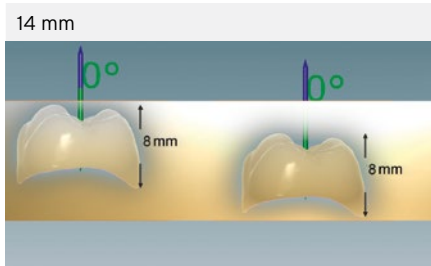
TIP



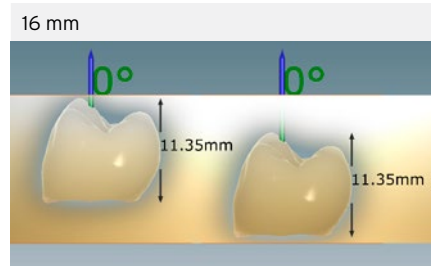
More information in the video **"Adding the wireframe"**

NESTING ZOLID FX MULTILAYER

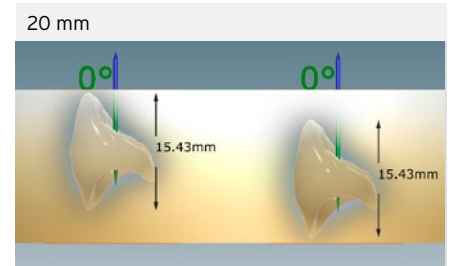
Depending on the nesting position, a total of two tooth shades per blank can be covered with the Zolid FX Multilayer blanks. A few aspects need to be taken into account to ensure that the shade gradient is optimally matched. The choice of the correct blank height in proportion to the restoration height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



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

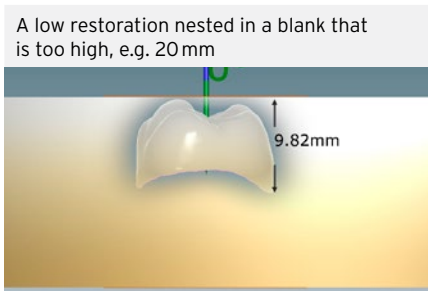


Perfect for restorations with the following heights: approx. 9-12 mm

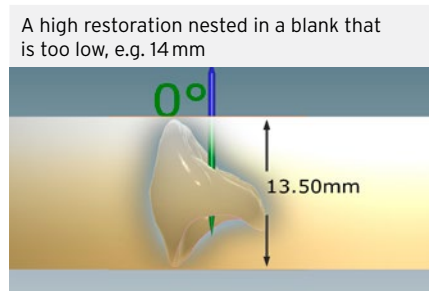


Perfect for restorations with the following heights: approx. 13-16 mm

Under no circumstances should too low restorations be nested in too high blanks and vice versa, as the proportions will otherwise no longer be correct.



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






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



MAGNIFICATION FACTOR

To compensate for volume shrinkage during the sintering process, Ceramill restorations made of zirconium oxide and 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 Ceramill blanks are marked with the following three specifications for the magnification factor:

F-value Special AG factor, only relevant for Amann Girrbach customer/fabrication systems	
V-value General magnification factor (expressed in %), most common magnification factor specification - often required as factor	
S-value Special magnification factor, very rare - relevant e.g. for Zirkozahn system	

The most common specification of the magnification factor for external systems is the V-value. On the Amann Girrbach blanks this is stated in %, however the input of the factor is often required. This is calculated as follows:

Calculation example: $23.37 / 100 + 1 = 1.2337$ (factor)

In general, CAM users of third-party systems should always consult the CAM manufacturer in advance to avoid confusion.



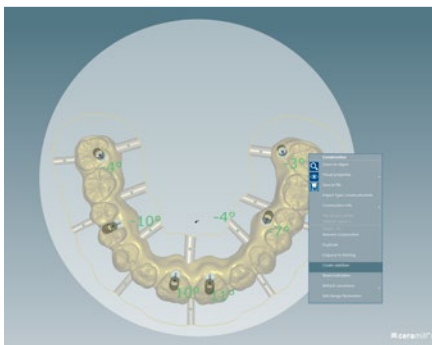
SINTERING SUPPORT STRUCTURES

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

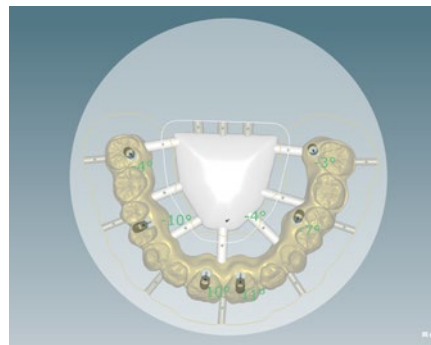
- _ Bridge constructions with more than 9 pontics
- _ Bridge constructions with a pronounced curvature, such as anterior tooth bridges

TIPS

- _ 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



Selection of a suitable sintering block



The connectors should be arranged as symmetrically as possible



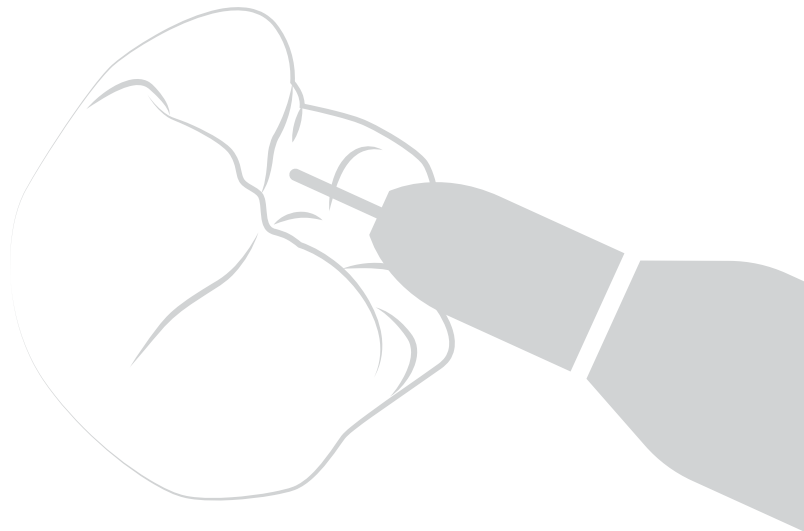
The number of connectors between the sintering block and the bridge should be at least four

REMOVE & REFINE

FINISHING ZIRCONIUM OXIDE

Finishing before sintering

Finishing after sintering

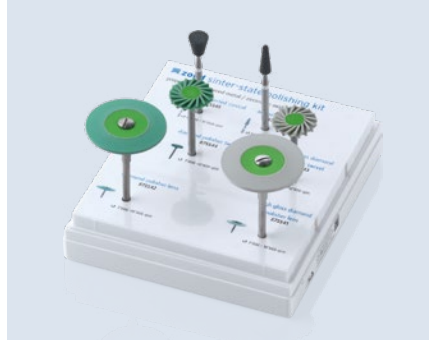


FINISHING

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 also crucial for success.



Green-State Finishing Kit for finishing zirconium restorations before sintering



Sinter-State Polishing Kit for finishing zirconium restorations after sintering



Polishing paste for final high gloss polishing

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:

- _ Never fall below minimum wall thicknesses and connector cross-sections
- _ If possible, all steps for preparation 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. Metal-free brushes and oil-free compressed air are suitable for this purpose
- _ If the surface of the whites is polished too much, this can lead to poorer absorption of the liquid

INFO



More information on the kits under **“Remove & Refine”**

STEP-BY-STEP FINISHING BEFORE SINTERING



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

TIP



More information in the video **"Processing zirconium before and after sintering"**

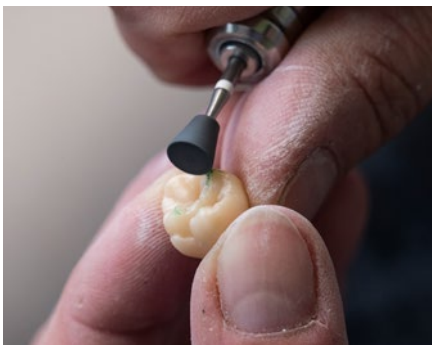
FINISHING AFTER SINTERING

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 also crucial for success.

TIPS

- _ 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

STEP-BY-STEP FINISHING AFTER SINTERING

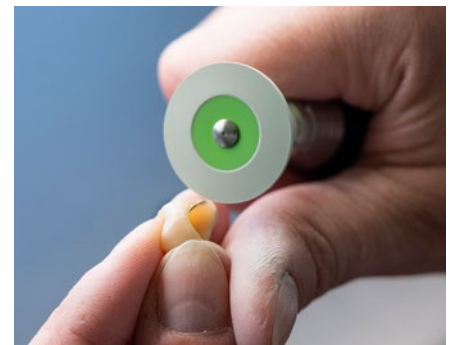


Gentle grinding of the occlusal contacts



Polishing "Lens" or "Swivel"

Tip: "Swivel" is ideal for difficult to access areas such as the occlusion or interdental area



High gloss polishing "Lens" or "Swivel"



Polishing paste for final high gloss polishing

TIP



More information in the video **"Processing zirconium before and after sintering"**

INTERNAL FINISH

General recommendations

Fasthetix

Aesthetix

Aesthetix Advanced

Pre-drying



GENERAL RECOMMENDATIONS FOR PROCESSING LIQUIDS

When using staining liquids for coloring before sintering, some tips can prove to be very useful.

TIPS

- _ 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 20 on the subject)
- _ Do not mix Ceramill Liquid with another Ceramill Liquid System The staining solutions may only be combined within one liquid system

The following information about immersion times and brush applications are only approximate values and depend on numerous factors, if necessary they may have to be adjusted individually according to workflow and preference.



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

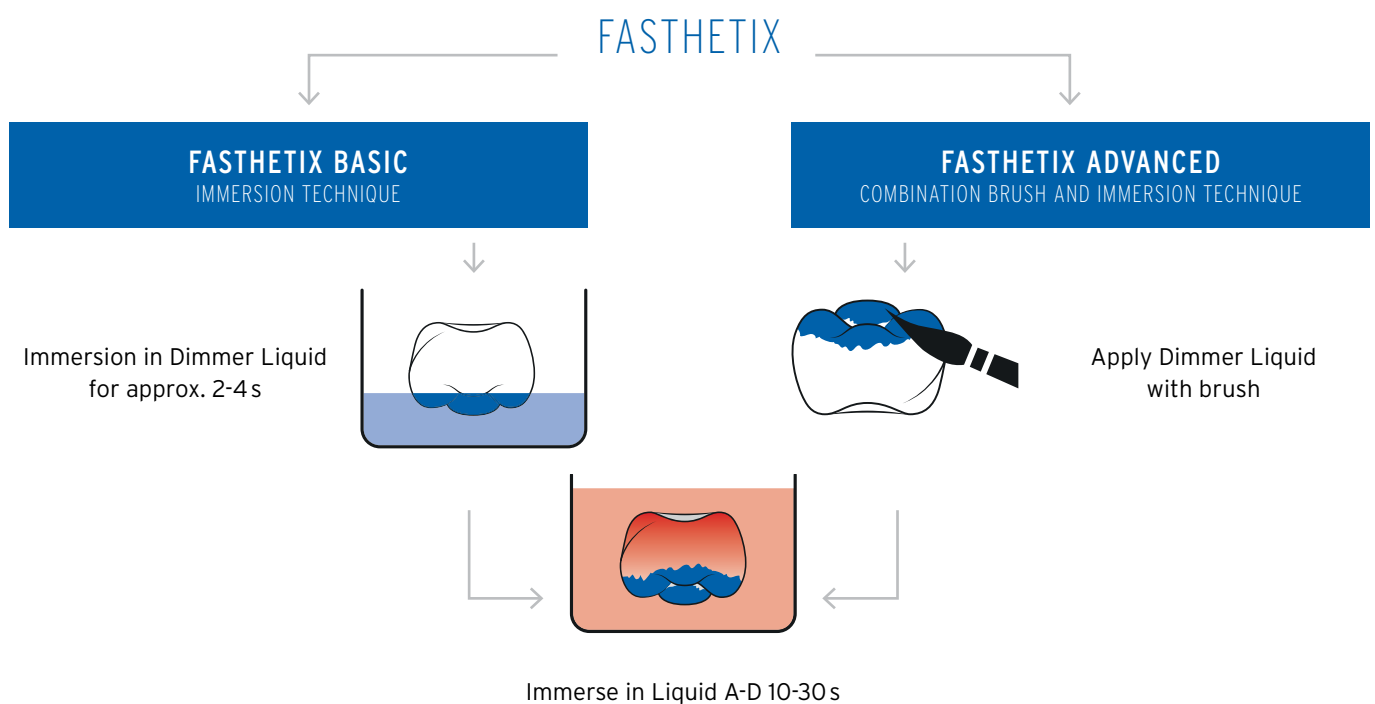
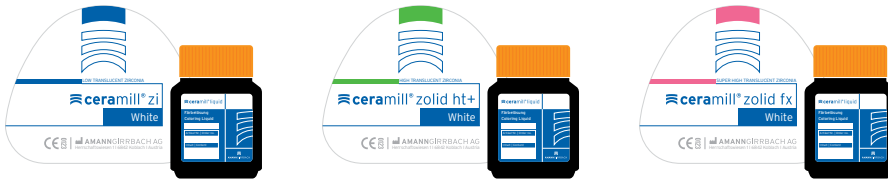
INFO



More information under **"Internal Finish"**

FASTHETIX - RAPID STAINING TECHNIQUE

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



TIP



More information in the video **"Fasthetix Basic"**

TIP



More information in the video **"Fasthetix Advanced"**

TIPS

- _ 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

AESTHETIX - HIGHLY ESTHETIC INDIVIDUALIZATION

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.



AESTHETIX BASIC IMMERSION TECHNIQUE

Ideally suited for simple and fast monochrome staining of frames which are subsequently veneered.

MATERIAL	PROCESSING		IMMERSION TIME
Zolid FX White	90 % Liquid FX	10 % Dimmer	
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).

TIP



More information in the video "Aesthetix Basic"

TIPS

Pretreatment of the bridge unit through immersion technique

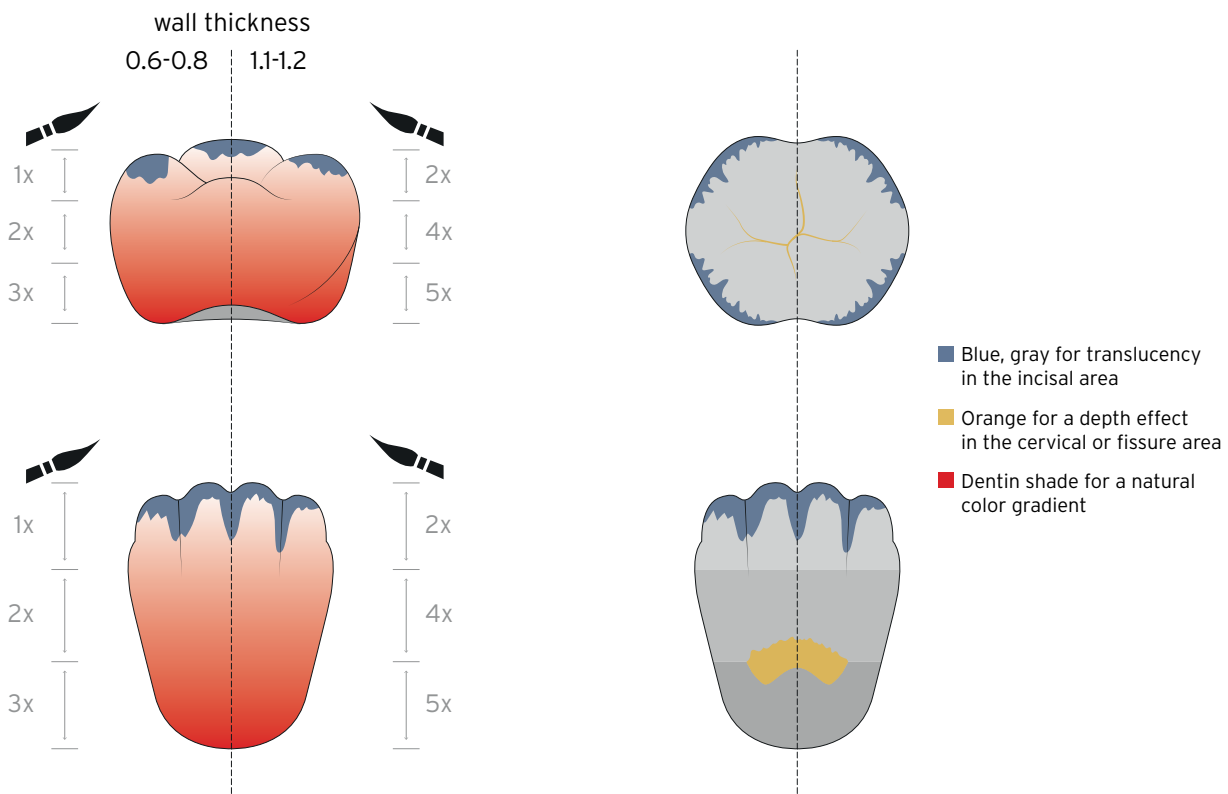


Prior to immersion, it is recommended to apply Dimmer Liquid at least once evenly with a brush to the solid pontic to obtain a shade of the pontic after immersion which is not too intensive.

AESTHETIX ADVANCED BRUSH TECHNIQUE

Ideal for staining monolithic restorations with a color gradient. To give very individual results, the effect stains can be used to set specific highlights.

STAINING WITH DENTIN AND EFFECT STAINS



TIP



More information in the video **"Aesthetix Advanced"**

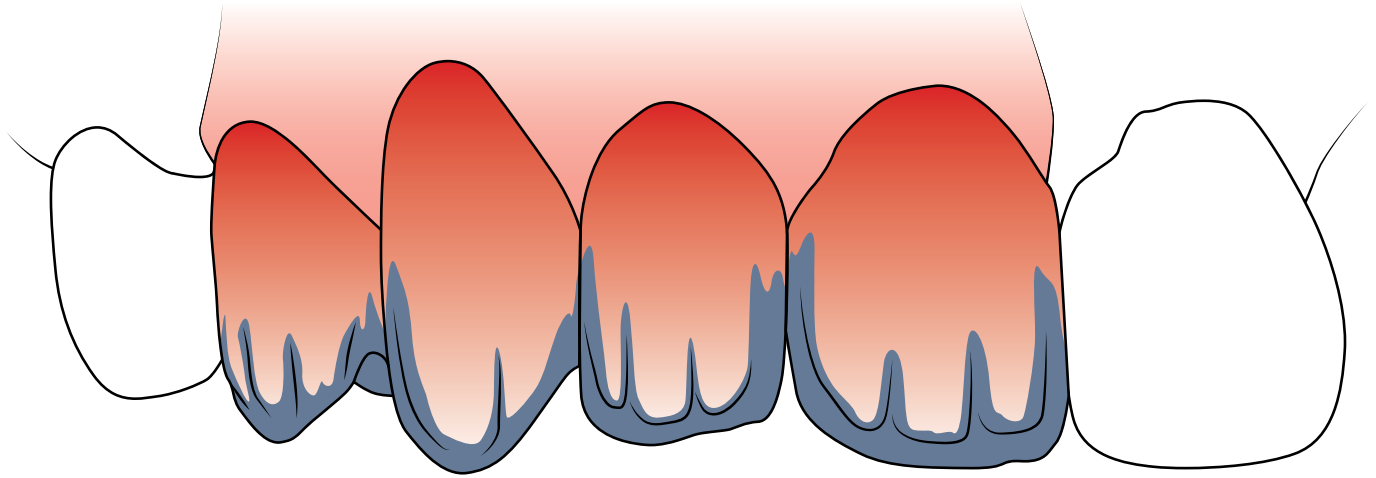
TIPS

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.

STAINING WITH GINGIVA SECTION



TIPS

- _ 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.

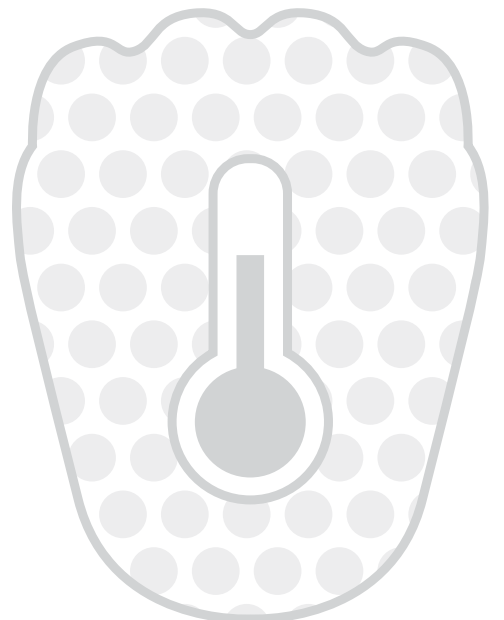
PRE-DRYING

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

SINTERING

Sintering programs



SINTERING OF ZOLID RESTORATIONS

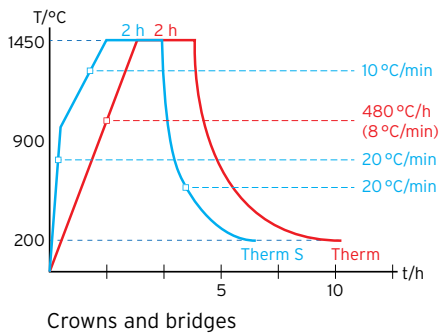
Sintering of zirconium oxide is one of the most important process steps in the fabrication of dental restorations.

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 as well as material-friendly sintering temperature of 1450 °C ensures economical processes. This allows ZI, Zolid, Zolid HT+ or Zolid FX to be sintered together in a single furnace run.

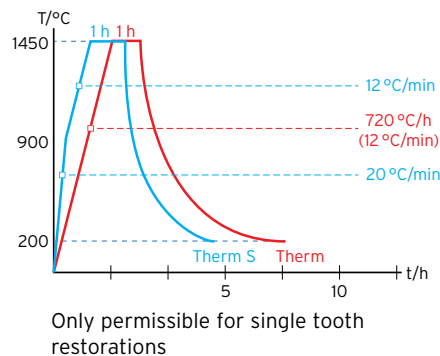
Optimum results are achieved with the Ceramill Therm and Therm S high-temperature furnaces from Amann Girrbach. These are fully matched to the Zolid portfolio and thus achieve the best possible material properties.

SINTERING PROGRAMS

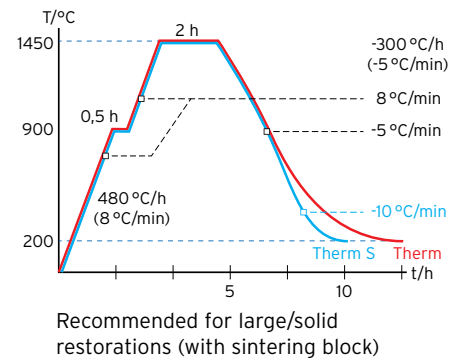
SINTERING PROGRAM 1 STANDARD



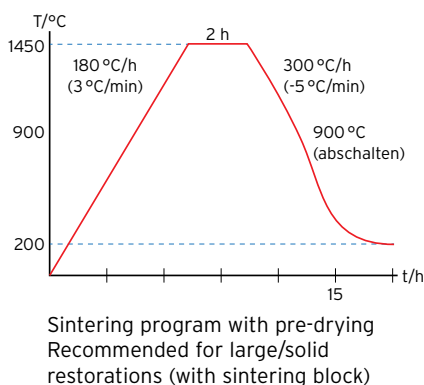
SINTERING PROGRAM 2 SHORT DURATION



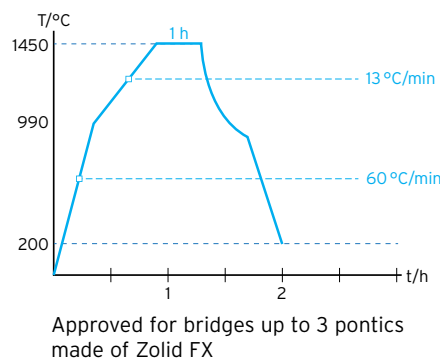
SINTERING PROGRAM 3 WITH LONG-TERM COOLING



SINTERING PROGRAM 4 WITH PRE-DRYING (THERM)



SINTERING PROGRAM CERAMILL ZIRCONIA SPEED (THERM S ONLY)

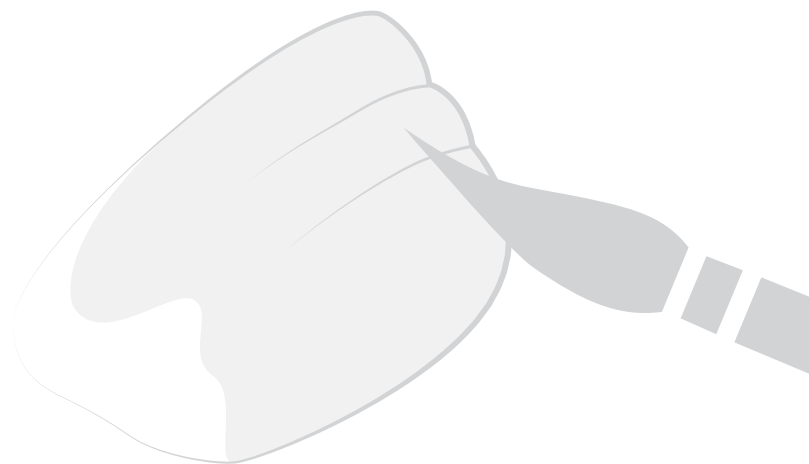


**SPEED SINTER CYCLE
2 h**

EXTERNAL FINISH

COLORING AFTER SINTERING

Finalizing

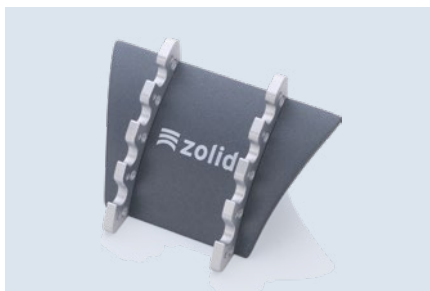


FINAL CHARACTERIZATION AFTER SINTERING

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" & "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, for example, 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.

TIP



More information in the video **"External Finish"**

INFO

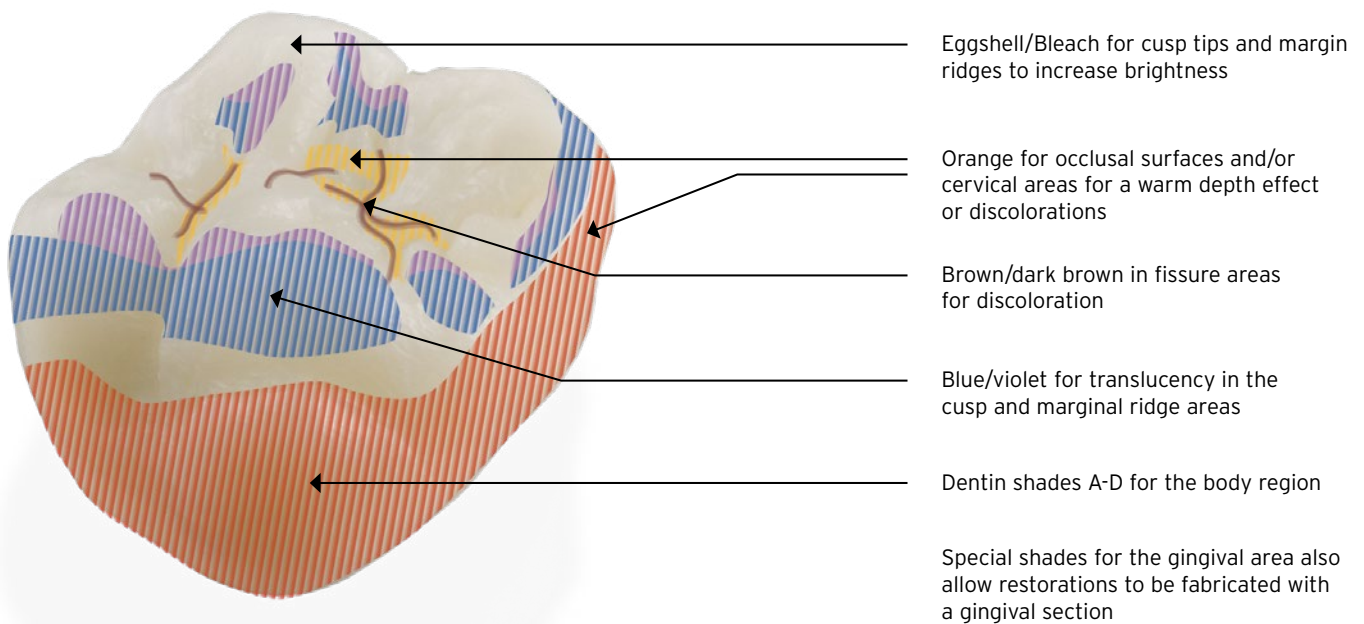


More information under **"External Finish"**

FINAL CHARACTERIZATION WITH STAINS AND GLAZING MATERIALS

The restorations made from Zolid DNA blanks can be finalized esthetically after the sintering process with the stains and glazing materials of the Ceramill Stain&Glaze kit. Accentuating highlights is sufficient for restorations of white blanks or work made from Zolid HT+ Preshades or Zolid FX Multilayer in the 16 VITA shades infiltrated with liquids. Pre-stained, monochrome restorations in the basic shades made of Zolid FX Preshades are finalized after sintering with the Ceramill Stain&Glaze to achieve the final tooth shade.

EXEMPLARY STAIN SCHEMA WITH CERAMILL STAINS:



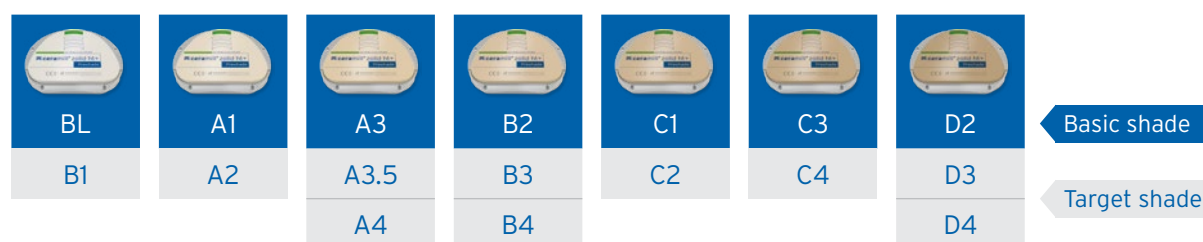
TIPS

- _ Thoroughly clean the restorations before applying stains and glazing materials
- _ Slight wetting of the restoration surface with Stain Liquid facilitates the subsequent application of the stains & glazing materials
- _ Stains such as blue, violet or gray can for example be used to individualize areas such as incisal edges or cusp tips
- _ Stains such as orange or brown can for example be used to individualize areas such as fissures or proximal contacts

LESS IS MORE! MAXIMUM FLEXIBILITY AND SHADE VARIETY DUE TO INTELLIGENT STAINING CONCEPT

The reason being, that the range of 16 Zolid HT+ Preshade blanks allows achieving all VITA tooth shades with only 7 blanks of base shades (BL, A1, A3, B2, C1, C3, D2) with the Ceramill Stain&Glaze stains by applying a sophisticated stain technique. This results in customized solutions which are both economical and offer unlimited flexibility depending on requirements and needs.

16 FROM 7 - MIXING TABLE FOR ACHIEVING THE 16 VITA SHADES



TARGET SHADE	BASIS	1. STAIN FIRING Apply dentin shade for the body region	2. STAIN FIRING Apply dentin shade for the body region
Bleach	Bleach	—	—
A1	A1	—	—
A2	A1	2/3 Dentin A + 1/3 Yellow	—
A3	A3	—	—
A3.5	A3	1/2 Dentin A + 1/2 Yellow	—
A4	A3	2/3 Dentin A + 1/3 Gray	2/3 Dentin A + 1/3 Gray*
B1	Bleach	1/2 Violet + 1/2 Yellow	1/2 Violet + 1/2 Yellow*
B2	B2	—	—
B3	B2	2/3 Orange + 1/3 Gray	2/3 Orange + 1/3 Gray*
B4	B2	1/3 Dentin C + 1/3 Gray + 1/3 Yellow	1/3 Dentin C + 1/3 Gray + 1/3 Yellow
C1	C1	—	—
C2	C1	1/4 Dentin C + 1/4 Yellow + 1/2 Blue	1/2 Dentin C + 1/2 Yellow
C3	C3	—	—
C4	C3	1/2 Dentin C + 1/2 Gray	1/2 Dentin C + 1/2 Gray*
D2	D2	—	—
D3	D2	1/2 Dentin D + 1/2 Gray	Dentin D cervical region*
D4	D2	2/3 Yellow + 1/3 Gray	2/3 Yellow + 1/3 Gray

* Depending on the frame thickness, a second stain firing is recommended

TIP



More information in the video "Turn 7 into 16"

TIPS

- _Prior to applying the stain, wet the surface very thinly with glazing liquid to ensure an even application of the stain
- _The intensity of the results can be controlled by mixing the stains with the glazing materials
- _Violet, gray or blue can be used for creating effects in the incisal area

STAIN ASSIGNMENT TABLES FOR ZOLID FX PRESHADES AND ZOLID PRESHADES WITH CERAMILL STAIN & GLAZE

The stain assignment tables show which VITA tooth shades can be achieved with which blanks using the Ceramill stains.



ZOLID FX PRESHADE

Blank shade	Tooth shade															
	Bleach	A1	A2	A3	A3.5	B1	B2	B3	B4	C1	C2	C3	C4	D1	D2	D3
Zolid FX Preshade Bleach	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zolid FX Preshade A Light	-	●	●	○	-	-	-	-	-	-	-	-	-	-	-	-
Zolid FX Preshade A medium	-	-	●	●	○	-	-	-	-	-	-	-	-	-	-	-
Zolid FX Preshade B Light	-	-	-	-	-	●	●	○	-	-	-	-	-	-	-	-
Zolid FX Preshade C Light	-	-	-	-	-	-	-	-	-	●	●	○	-	-	-	-
Zolid FX Preshade D Light	-	-	-	-	-	-	-	-	-	-	-	-	-	●	●	-

● Shade is achieved ○ Shade can be achieved with stains - shade cannot be achieved

FIRING PROGRAM CERAMILL STAIN & GLAZE

Starting temperature	450 °C
Drying time	5 min
Temperature increase	40 °C/min
Final temperature	850 °C
Holding time	1 min



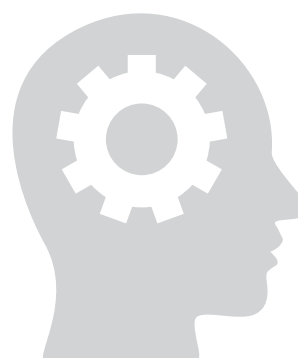
TIPS

- _ The stain and glaze firing can be performed in one firing process
- _ Gradual long-term cooling is recommended for long-span bridges and/or solid intermediate units/gingiva sections
- _ If the desired shade has not been achieved, it can be corrected by firing again



TRAINING

Additional brochures, instructions and training courses



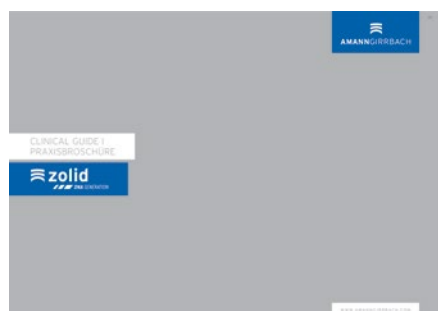
AS ESTHETICS ARE NOT HAPPENSTANCE

A product is only complete if one knows how to use it correctly. For this reason, Amann Girrbach presents a comprehensive information and training offer within the context of Esthetic Management for the use of Ceramill zirconium oxide, 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

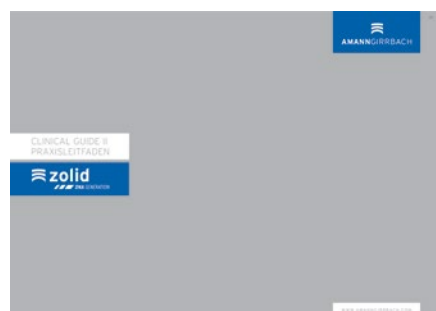
All important information about the Zolid DNA System



CLINICAL GUIDE II

Practice guideline

Preparation, luting, surface polishing



CLINICAL GUIDE III

Scientific compendium

Compendium Zolid DNA studies



ZIRCONIUM BROCHURE

Zolid DNA Zirconia

Versatile, economical, esthetic.



HANDS-ON COURSES

for perfect esthetics

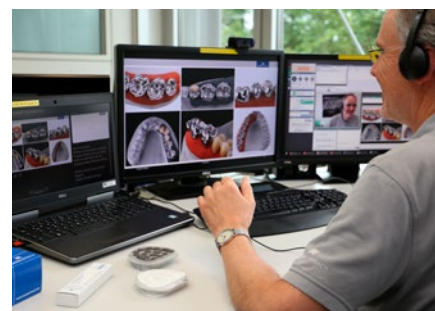
Precise targeted processing of the materials is the focus of our courses.



ONLINE WEBINARS

Easy and efficient

Webinars save time and create new opportunities for training and further education.



TIP



Overview of all videos.

INFO



The entire pooled knowledge is available online.

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