



AMANNGIRRBACH

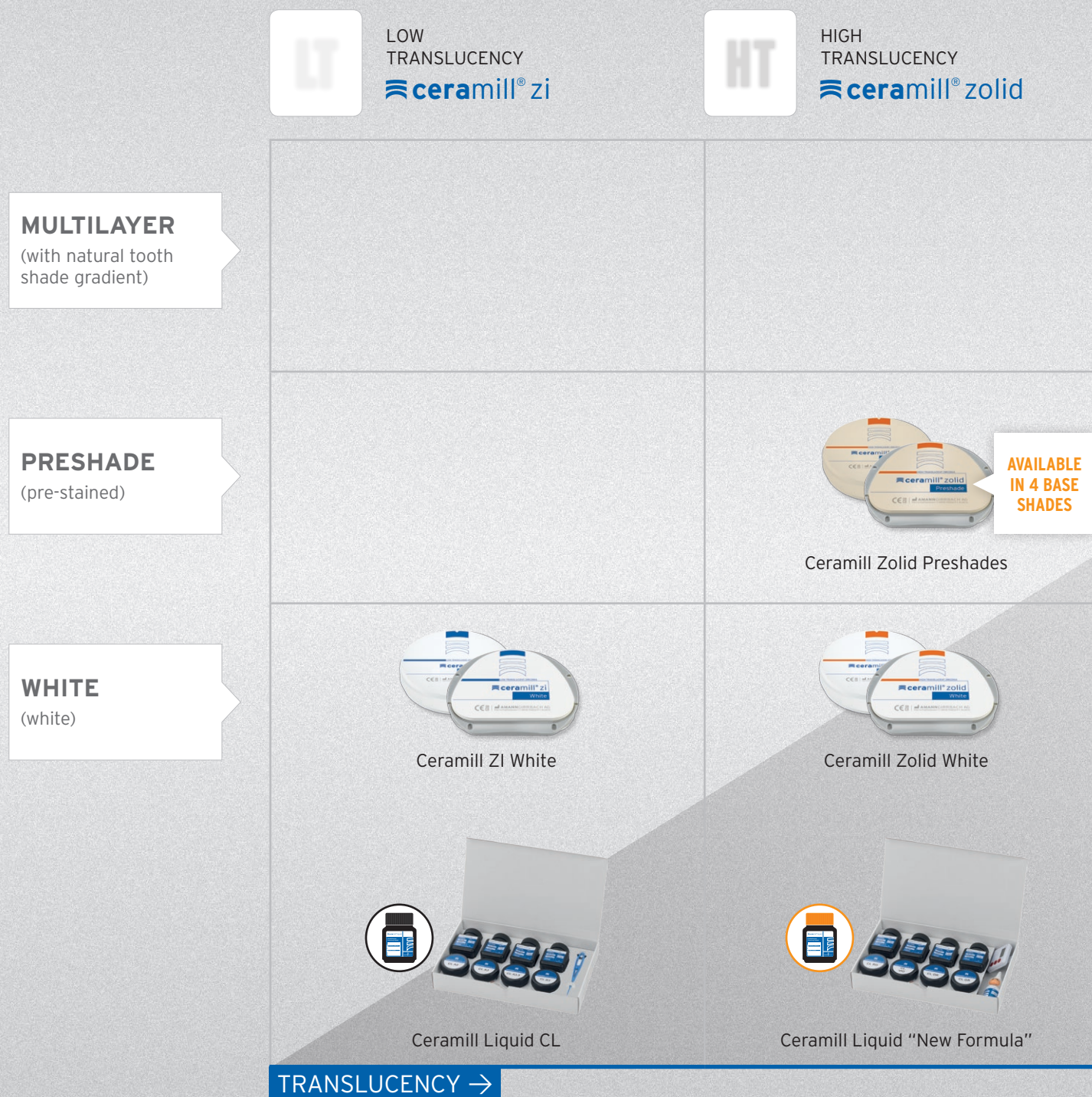
STAINING TECHNIQUE

 **ceramill[®]** zirconia



ZIRCONIA FOR ALL REQUIREMENTS

Zirconia is enjoying great popularity thanks to its impressive technical and optical properties. Its versatility and excellent biocompatibility make the high-performance ceramic the first choice for high-quality restorations with high aesthetic requirements. With the zirconia blanks bearing the Ceramill brand name Amann Girrbach provides the correct material for every zirconia-based indication to fabricate restorations with long-term stability and natural aesthetics economically and efficiently.





HIGH
TRANSLUCENCY
ceramill® zolid ht+



SUPER HIGH
TRANSLUCENCY
ceramill® zolid fx



Ceramill Zolid FX Multilayer



Ceramill Zolid HT+ Preshades*



Ceramill Zolid FX Preshades



Ceramill Zolid HT+ White



Ceramill Zolid FX White



Ceramill Liquid "New Formula"



Ceramill Liquid FX

EFFICIENCY →







* available from September 2017

The product offer can vary from country to country depending on the approval status.

AESTHETIC MANAGEMENT AND PROCESSING

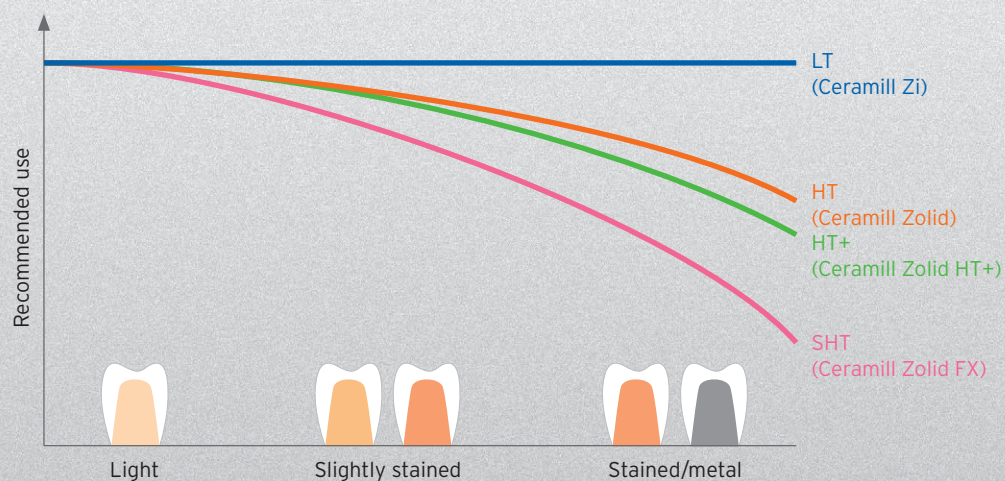
The optimum zirconia for an indication is based on very different factors. Aesthetic requirements, position of the restoration intraorally or the prepared tooth shade decisively influence the choice of material.

The more accurately the prepared tooth shade and indication are matched the more predictable and aesthetically precise the result can be achieved.

Prepared tooth shade	Translucency	Product	Processing			
			Brush/ immersion technique	Staining technique	Cut-back technique	Build-up technique
Light 	SHT 	Ceramill Zolid FX Multilayer		○	○	
		Ceramill Zolid FX Preshades		○	○	○
		Ceramill Zolid FX White	○	○	○	○
Light-slightly stained 	HT 	Ceramill Zolid HT+ White	○	○	○	○
		Ceramill Zolid Preshades		○	○	○
		Ceramill Zolid White	○	○	○	○
Light-stained/ metal 	LT 	Ceramill ZI White	○			○

Indication							
Veneer	Inlay	Onlay	Anterior and posterior crown	3-unit bridge (incl. molar region)	Multi-unit bridge	Hybrid abutment	Hybrid abutment crown
○	○	○	○	○			○
○	○	○	○	○			○
○	○	○	○	○			○
			○	○	○	○	○
			○	○	○	○	○
			○	○	○	○	○
			○	○	○	○	○

RECOMMENDED USE OF CERAMILL ZIRCONIA IN RELATION TO PREPARED TOOTH SHADE AND DEGREE OF TRANSLUCENCY



ACCURATE SHADE RESULTS. FASTETIX AND AESTHETIX - STAINING WITH LIQUIDS MADE EASY

Amann Girrbach provides tailored solutions for customising zirconia restorations before the sintering process with a wide range of colouring solutions and corresponding processing techniques. A wide range of A-D liquids, shade modifiers and aids such as Ceramill Liquid Eye and Ceramill Dimmer ideally complement the portfolio.

The "Fasthetix" and "Aesthetix" staining concepts describe two different approaches for aesthetic, economic customisation of Ceramill zirconia restorations.



FASTHETIX - QUICK-STAINING TECHNIQUE

Efficiency and economy are gaining ever-increasing importance today. The "Fasthetix concept" enables aesthetic Ceramill zirconia restorations with shade gradient to be fabricated in a few seconds using only one liquid set "Ceramill Liquid new formula". The uncomplicated Fasthetix method provides the perfect introduction to the world of Ceramill zirconia.



- _Highly aesthetic, natural appearance in less than 20 seconds**
- _A liquid set for Ceramill Zolid White, Zolid HT+ White and Ceramill Zolid FX White**
- _High efficiency with guaranteed shade stability**



AESTHETIX - HIGHLY AESTHETIC CUSTOMISATION

In addition to the dentine liquids specifically developed for each translucency stage and special colour shades for customisation, the "Aesthetix concept" offers mature immersion and brush techniques. Diverse yet clearly designed, "Aesthetix" enables every aesthetic requirement to be met. The result is highly aesthetic restorations that are virtually indistinguishable from natural teeth.



- _Premium aesthetic and highest degree of customisation**
- _Material specific liquids for every type of zirconia and perfect shade match**
- _Shade modifier liquids for even greater customisation**



 **ceramill**® zolid white

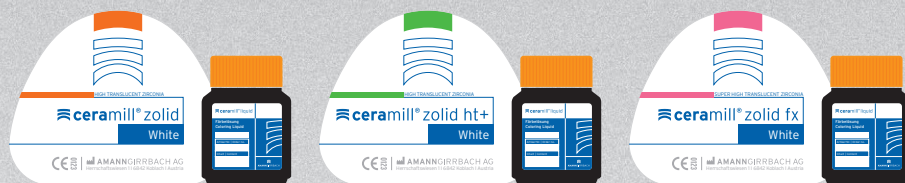
 **ceramill**® zolid ht+ white

 **ceramill**® zolid fx white

QUICK-STAINING TECHNIQUE

FASTHETIX - QUICK-STAINING TECHNIQUE USING CERAMILL LIQUIDS

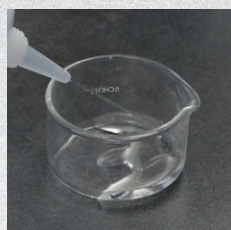
Ceramill Zolid White, Ceramill Zolid HT+ White, Ceramill Zolid FX White



FASTHETIX

FASTHETIX BASIC IMMERSION TECHNIQUE

Fill Ceramill Dimmer Liquid in a container. The lightened area can be used as a guide to the filling level.



Immerse the restoration in the Ceramill Dimmer Liquid for approx. 5 seconds (occlusal surface should face downwards). Then dab off the excess liquid.

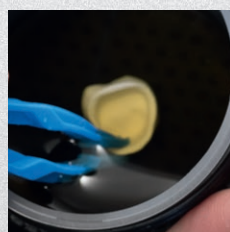
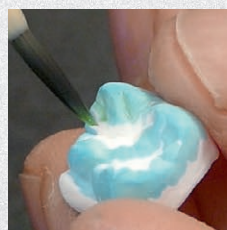


FASTHETIX ADVANCED COMBINATION OF BRUSH AND IMMERSION TECHNIQUE

Mix Ceramill Dimmer Liquid with a few drops of Ceramill Liquid Eye



Apply Ceramill Dimmer Liquid in the occlusal region to customise the lightness area



Immerse the restoration for 10-60 sec. in the required Ceramill Liquid A-D (immersion times see Page 9). Then dab off the excess liquid

SINTERING (see Page 14)

FINISHING (SEE PAGE 15)

QUICK-STAINING TECHNIQUE

FASTHETIX - SHADE COMBINATION CHART INCLUDING IMMERSION TIMES (BASIC, ADVANCED)

Ceramill Zolid White, Ceramill Zolid HT+ White, Ceramill Zolid FX White



Ceramill Zolid White

VITA tooth shade	Ceramill Liquids "new formula"	Immersion time
A1	A1	10-20 sec.
A2	A2	10-20 sec.
A3	A3	10-20 sec.
A3.5	A3.5	10-20 sec.
A4	A4	10-20 sec.*
B1	B1	10-20 sec.
B2	B2	10-20 sec.
B3	B3	10-20 sec.
B4	B4	10-20 sec.*
C1	C1	10-20 sec.
C2	C2	10-20 sec.
C3	C3	10-20 sec.
C4	C4	10-20 sec.*
D2	D2	10-20 sec.
D3	D3	10-20 sec.
D4	D4	10-20 sec.*

Ceramill Zolid FX White, Zolid HT+ White,

VITA tooth shade	Ceramill Liquids "new formula"	Immersion time
A1	A2	10-20 sec.
A2	A3	10-20 sec.
A3	A3.5	10-20 sec.
A3.5	A4	10-20 sec.
A4	A4	45-60 sec.
B1	B2	10-20 sec.
B2	B3	10-20 sec.
B3	B4	10-20 sec.
B4	B4	45-60 sec.
C1	C2	10-20 sec.
C2	C3	10-20 sec.
C3	C4	10-20 sec.
C4	C4	45-60 sec.
D2	D3	10-20 sec.
D3	D4	10-20 sec.
D4	D4	45-60 sec.

* Double the immersion time for Zolid HT+ White



Ceramill Zolid FX Multilayer



 **ceramill®** zi white

 **ceramill®** zolid white

 **ceramill®** zolid ht+ white

 **ceramill®** zolid fx white

HIGHLY AESTHETIC CUSTOMISATION

AESTHETIX - HIGHLY AESTHETIC CUSTOMISATION USING CERAMILL LIQUIDS

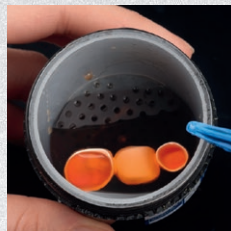
Ceramill ZI White, Ceramill Zolid White, Ceramill Zolid HT+ White, Ceramill Zolid FX White



AESTHETIX

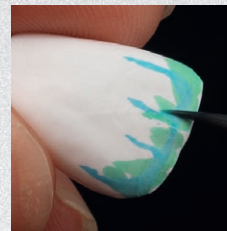
AESTHETIX BASIC IMMERSION TECHNIQUE

Immerse the restoration in the corresponding Ceramill Liquid. Mixing ratios and immersions times see Page 13

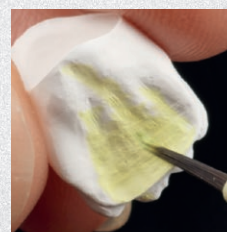


✦ With solid pontics it is recommended to precondition the pontic with dentine shades to avoid differences in shade.

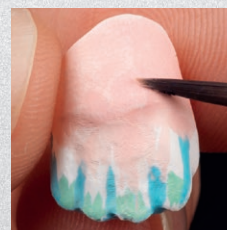
AESTHETIX ADVANCED BRUSH TECHNIQUE



Incisal regions with shade modifiers, e.g. grey/blue for increased depth effect



Fissures and interdental regions in, e.g. brown/orange for increased chroma












Body regions in A-D Liquids

SINTERING (see Page 14)

FINISHING (see Page 15)



HIGHLY AESTHETIC CUSTOMISATION

AESTHETIX BASIC IMMERSION TECHNIQUE - SHADE COMBINATION CHARTS

MATERIAL		PROCESSING			
Ceramill Zirconia	Ceramill Liquid	Dentine shade	Framework thickness	Recommended mixing ratio	Immersion time
Ceramill Zolid FX White 	Ceramill Liquid FX 	A-D Liquids	Independent of wall thickness	90 % A-D Liquids FX + 10 % Dimmer	10 sec.
Ceramill Zolid White 	Ceramill Liquid "new formula" 	A-D Liquids	Independent of wall thickness	75 % A-D Liquids "new formula" + 25 % Dimmer	10 sec.
Ceramill Zolid HT+ White 	Ceramill Liquid "new formula" 	A-D Liquids	Independent of wall thickness	100 % A-D Liquids "new formula"	10 sec.*
Ceramill ZI White 	Ceramill Liquid "new formula" 	A-D Liquids	Independent of wall thickness	100 % A-D Liquids "new formula"	10 sec.
	Ceramill Liquid CL 1-4 	CL1-CL4 Liquids		See instructions for use	See instructions for use




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

AESTHETIX ADVANCED - SHADE COMBINATION CHARTS

MATERIAL		PROCESSING			
Ceramill Zirconia	Ceramill Liquid	Shade modifier and dentine shade	Framework thickness	Recommended mixing ratio	Number of brush applications
Ceramill Zolid FX White 	Ceramill Liquid FX 	Orange	Independent of wall thickness	20 % orange + 80 % Dimmer	Individual (e.g. 1-2x)
		Grey		50 % grey + 50 % Dimmer	
		Violet		100 % violet	
		Blue		100 % blue	
		A-D Liquids	0.6-0.8 mm	100 % A-D Liquids FX	3x inside + 3x outside*
			1.1-1.2 mm		5x inside + 5x outside*

To be observed for Ceramill Zolid HT+:

Increase the number of brush applications for A-D liquids by 3 or double respectively.

MATERIAL		PROCESSING			
Ceramill Zirconia	Ceramill Liquid	Shade modifier and dentine shade	Framework thickness	Recommended mixing ratio	Number of brush applications
Ceramill Zolid White 	Ceramill Liquid "new formula" 	Orange	Independent of wall thickness	20 % orange + 80 % Dimmer	Individual (e.g. 1-2x)
		Grey		50 % grey + 50 % Dimmer	
		Violet		100 % violet	
Ceramill Zolid HT+ White 		A-D Liquids	0.6-0.8 mm	100 % A-D Liquids new formula	3x inside + 3x outside*
			1.1-1.2 mm		5x inside + 5x outside*

After brush application of shade modifier and dentine shade, it is recommend to re-immers the entire restoration in a Dimmer/dentine mixture to achieve a homogeneous shade gradient from cervical to incisal. The following concentration can be selected as a guideline: shade homogenising: 40%

Ceramill Zolid FX: 40 % A-D Liquid FX + 60 % Dimmer Liquid

Ceramill Zolid/Ceramill Zolid HT+: 30 % A-D Liquid „new formula“ + 70 % Dimmer Liquid

* If crowns are to be immersed after brush application, apply 1 brush cycle fewer

SINTERING

SINTERING OF CERAMILL ZIRCONIA

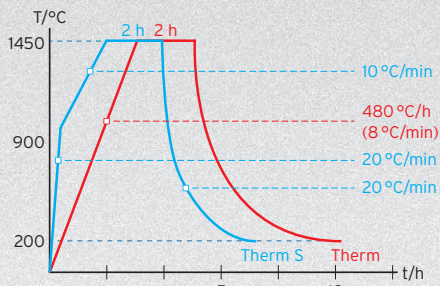
Sintering of zirconia is one of the most important steps in the fabrication of dental restorations. The porous pre-sintered coping condenses under the influence of high temperatures and the blank attains its final, proven mechanical (strength) and optical (translucency) properties. The standard, material-protecting sintering temperature of 1450°C ensures an efficient process. This allows Ceramill ZI, Zolid, Zolid HT+ white or Zolid FX to be sintered together in one furnace.

Optimum results are achieved using Ceramill Therm and Thermo S high-temperature furnaces from Amann Girrbach. These are fully coordinated to Ceramill Zirconia, thus achieving the best possible material properties.

SINTER PROGRAMME

SINTER PROGRAMME 1

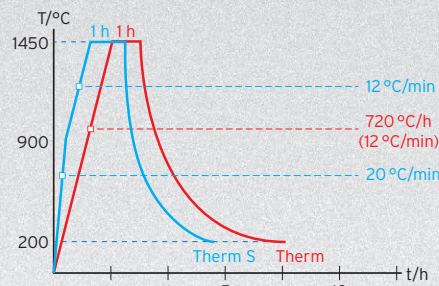
STANDARD



Crowns and bridges

SINTER PROGRAMME 2

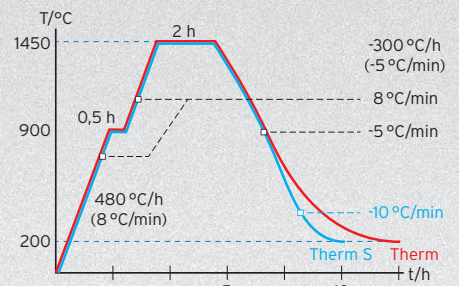
SHORT CYCLE



Only approved for single-tooth restorations

SINTER PROGRAMME 3

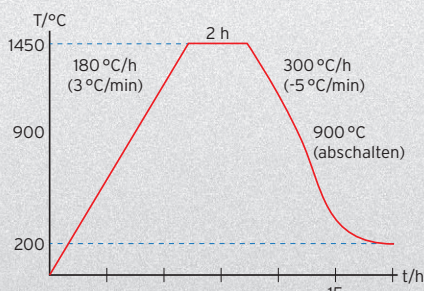
WITH SLOW COOLING CYCLE



Recommended for long-span/solid restorations (with sinter support block)

SINTER PROGRAMME 4

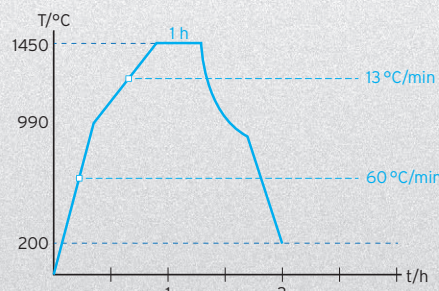
WITH PRE-DRYING



Sinter programme with pre-drying
Recommended for long-span/solid restorations (with sinter support block)

SINTER PROGRAMME 5

SPEED SINGLE UNITS (THERM S)



Only permissible for single tooth restorations

**SPEED
SINTER CYCLE 2 H**



Ceramill Therm



Ceramill Therm S



FINISHING WITH THE STAINING TECHNIQUE

FINAL CUSTOMIZATION USING STAINS AND GLAZE PORCELAINS.

Ceramill zirconia restorations can be given the final aesthetic touches after the sintering process using stains and glaze porcelains. Applying highlights is sufficient with infiltrated restorations and Ceramill Zolid FX Multilayer restorations in A-D shades. Pre-stained, monochromatic Ceramill Zolid/Zolid FX Preshade restorations must be given the final touches using Body stains to achieve the definitive tooth shade.

STAINING TECHNIQUE



SHADE COMBINATION CHARTS STAIN AND GLAZING TECHNIQUE FOR CERAMILL ZOLID FX PRESHADES, ZOLID PRESHADES



Ceramill Zolid FX Preshade:

Blank shade	Tooth shade								
	Bleach	A1	A2	A3	A3,5	B1	B2	B3	B4
Ceramill Zolid FX Preshade Bleach	●	-	-	-	-	-	-	-	-
Ceramill Zolid FX Preshade A Light	-	●	●	○	-	-	-	-	-
Ceramill Zolid FX Preshade A medium	-	-	●	●	○	-	-	-	-
Ceramill Zolid FX Preshade B Light	-	-	-	-	-	●	●	○	-
Blank shade	C1	C2	C3	C4	D2	D3	D4		
Ceramill Zolid FX Preshade C Light	●	●	○	-	-	-	-		
Ceramill Zolid FX Preshade D Light	-	-	-	-	●	●	-		



Ceramill Zolid Preshade:

Blank shade	Tooth shade								
	Bleach	A1	A2	A3	A3,5	B1	B2	B3	
Ceramill Zolid Preshade 0 (Preshade Bleach)	●	-	-	-	-	-	-	-	
Ceramill Zolid Preshade 2 (A light)	-	●	●	○	-	-	-	-	
Ceramill Zolid Preshade 3 (A medium)	-	-	●	●	○	-	-	○	
Ceramill Zolid Preshade 1 (B light)	-	○	○	-	-	●	●	-	

● Ideal for this shade ○ Shade can be achieved - unsuitable for this shade

AUSTRIA (HEADQUARTERS)

Amann Girrbaach AG
Koblach, Austria
Fon +43 5523 62333-105
austria@amanngirrbaach.com

GERMANY

Amann Girrbaach GmbH
Pforzheim, Germany
Fon +49 7231 957-100
germany@amanngirrbaach.com

NORTH AMERICA

Amann Girrbaach North America, LP
Charlotte, NC, U.S.A.
Fon +1 704 837 1404
america@amanngirrbaach.com

BRASIL

Amann Girrbaach Brasil LTDA
Curitiba, Brasil
Fon +55 41 3287 0897
brasil@amanngirrbaach.com

ASIA

Amann Girrbaach Asia PTE LTD.
Singapore, Asia
Fon +65 6592 5190
singapore@amanngirrbaach.com

CHINA

Amann Girrbaach China Co., Ltd.
Beijing, China
Fon +86 10 8886 6064
china@amanngirrbaach.com