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AMANNGIRRBACH

CLINICAL GUIDE I PRACTICE BROCHURE

zolid DNA GENERATION

WWW.AMANNGIRRBACH.COM

Zolid FX | Amann Girrbach

zolid DNA GENERATION

10 MIO UNITS
CLINICALLY PROVEN

ZOLID DNA – ZIRCONIA REDEFINED

With Zolid, Amann Girrbach provides a comprehensive all-ceramic system for high-quality and esthetic zirconia restorations. Complete integration into the CAD/CAM workflow ensures maximum process reliability and continuously high quality. This process creates restorations that are individually adapted to each patient situation and can hardly be surpassed in terms of durability and esthetics.

Zolid zirconia is the result of a decade of Amann Girrbach's experience in the development and in-house production of zirconia for dental restorations. Worldwide, more than 10 million units have already been produced from Amann Girrbach Zolid blanks – with an almost negligible complaint rate of < 0.1 %[1]. The excellent material properties of Zolid products are also reflected in several studies that underline the clinical evidence for the products.

The heart of Amann Girrbach lies in Koblach in Austria

„Dentustry One“ with one of the most state-of-the-art production facilities for dental products on over 4,500 sqm

[1] Risk Management Report Amann Girrbach 2017

ZOLID DNA – THE GUARANTOR FOR YOUR TREATMENT SUCCESS

HIGHEST QUALITY

By using the best raw materials and many years of experience in the production of zirconia blanks.

CLINICALLY TESTED

With more than 10 million restorations produced, which convince dentists and patients alike.

MAXIMUM ESTHETICS

Owing to natural translucency and shades perfectly matched to the Vita Shade Guide.

PROCESS SAFETY

Through a coordinated workflow with comprehensive, self-explanatory guidelines.

ZOLID DNA – THE SYSTEM FOR TROUBLE-FREE AND FUNCTIONAL RESTORATIONS

PREPARATION → REGISTRATION → PREPARATION OF MODELS → DIGITAL TRANSFER → MATERIAL SELECTION → CAD/CAM PRODUCTION → FINALIZING → CEMENTATION








MAXIMUM PROCESS SAFETY DUE TO FULLY INTEGRATED WORKFLOW

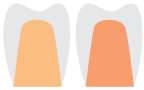
_Illustrated step by step guidelines for selecting the correct preparation parameters
_Registration of the jaw relation and production of precision models for patient-related restorations
_Digitization of all data for the innovative fabrication of zirconia restorations using CAD software
_Maximum material and indication diversity with Zolid DNA zirconia
_Efficient and reproducible fabrication with state-of-the-art CNC milling machines
_Material-conserving sintering for optimum material properties and long-term stability
_Illustrated step-by-step guidelines for the correct cementation of the restorations

zolid DNA GENERATION

THE RIGHT MATERIAL FOR EVERY INDICATION

The optimum zirconia for an indication is determined by a host of different factors. Esthetic requirements, the size of the restoration or the shade of the die 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.

TRANSLUCENCY →

Material	Die shade	Indication							
		Veneer	Inlay	Onlay	Anterior and posterior crown	3-pontic bridge (incl. molar region)	Multi-unit bridge	Hybrid abutment	Hybrid abutment crown
SHT SUPER HIGH TRANSLUCENCY Zolid FX	Bright	○	○	○	○	○			○
		○	○	○	○	○			○
		○	○	○	○	○			○
HT HIGH TRANSLUCENCY Zolid ht+	Bright – slightly discolored 				○	○	○	○	○
					○	○	○	○	○
LT LOW TRANSLUCENCY zi	Bright- discolored/metal 				○	○	○	○	○

THE BEST OF THREE GENERATIONS OF ZIRCONIA

zolid fx BEST CHOICE FOR MONOLITHIC CROWNS

SHT

_More safety compared to conventional glass ceramics due to strength values of up to 700 MPa

_Broad indication spectrum with up to 3-pontic bridges extending into the molar region

_Minimum restoration thicknesses of 0.5 mmm-0.7 mm allow substance-conserving preparation and working in confined spaces

Monolithic crowns made of Zolid FX ML / 15-26

DT Mauro Ahmić, Sandi Trkulja Dental Inpuls

zolid ht+ IDEAL FOR ALL-ON-X CASES

HT

_Combines natural esthetics with high strength of up to 1,000 MPa

_Ideal for wide span implant-supported constructions with gingival component

_Particularly massive restorations gain natural esthetics due to the increased translucency of the material

Crowns made of Zolid HT+ with little Cutback / 13-23

MDT Benjamin Votteler, Dentaltechnik Votteler GmbH & Co

zi PERFECT BASIS FOR FRAMES

LT

_Ideal for wide-span frames with strength values of 1,200 MPa

_Perfect basis for individually veneered restorations

_Suited for covering discolored/metallic structures due to high opacity

Fully veneered frame work made of ZI / 11-23

MDT Benjamin Votteler, Dentaltechnik Votteler GmbH & Co

zolid DNA GENERATION

OUTSTANDING STRENGTH, ESTHETICS AND DURABILITY COMBINED IN A SINGLE MATERIAL

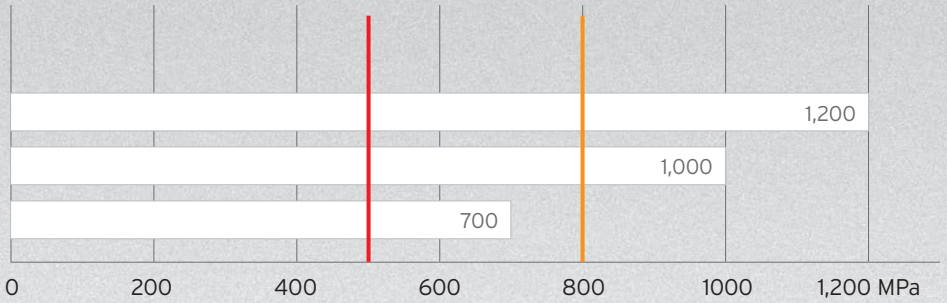
FLEXURAL STRENGTH

3-point flexural strength [MPa] DIN EN ISO 6872.
The higher the flexural strength of zirconia (ZrO_2) the better the stability under masticatory loading.

— Class 5 > 800 MPa according to DIN EN ISO 6872*
— Class 4 > 500 MPa according to DIN EN ISO 6872**

Source: Amann Girrbach R&D
* Minimum requirement for the fabrication of 4- to multi-pontic bridges;
** Minimum requirement for the fabrication of 3-pontic bridges

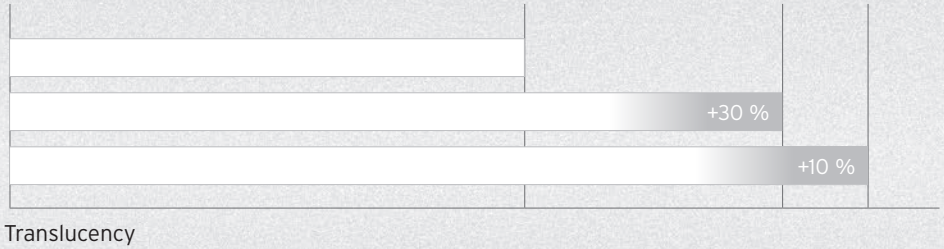
zi
zolid ht+
zolid fx



TRANSLUCENCY

The higher the translucency the more permeable the material is to light (translucent).

zi
zolid ht+
zolid fx



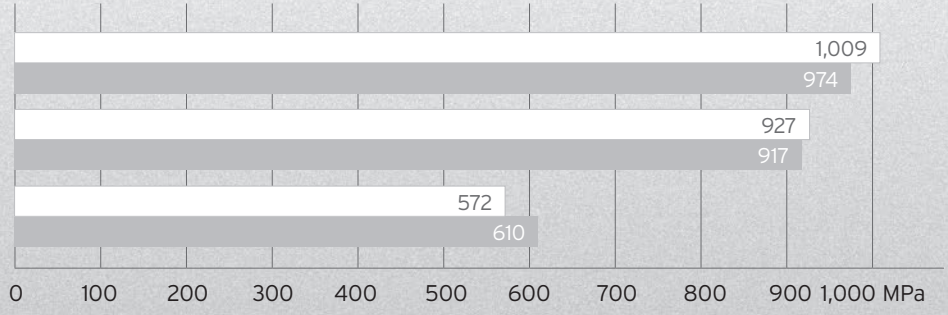
RESISTANCE TO AGEING

4-point flexural strength [MPa] DIN EN ISO 6872.
Consistent strength values (Weibull module) after simulated mechanical ageing (1.2 million cycles, 100 N). Amann Girrbach zirconia exhibits no signs of ageing.

prior to mechanical aging
after mechanical aging

Results/references:
* LMU Munich; ** Amann Girrbach R&D

zi*
zolid ht+**
zolid fx**



THE EFFECTIVE ALTERNATIVE TO LITHIUM DISILICATE

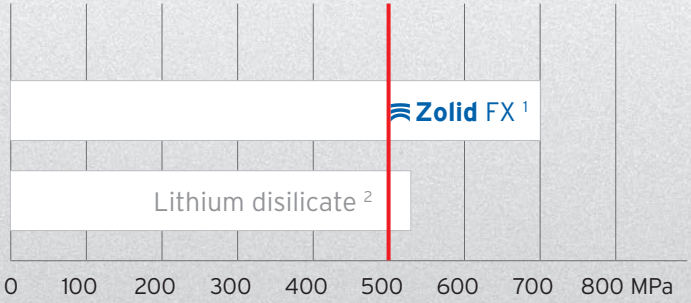
Crown made of Zolid FX

Crown made of lithium disilicate

_More safety versus conventional glass ceramics due to greater strength – entirely without ageing effect

_Highly esthetic restorations for anterior and posterior regions with extended indication spectrum for bridges of up to 3 pontics extending into the molar region

_Minimum restoration thicknesses of 0.5 mmm-0.7 mm allow substance-conserving preparation and working in confined spaces irrespective of luting



1) 3-point flexural strength (MPa) DIN EN ISO 6872

2) Mean flexural strength (manufacturer's data Ivoclar Vivadent)

Class 4 › 500 MPa according to DIN EN ISO 6872

ZOLID DNA GENERATION – COMPLEX PATIENT CASE WITH MAXIMUM ESTHETICS

1

Initial situation: multiple agenesis in the maxilla and mandible. Orthodontic pre-treatment was performed. Pronounced progeny is clearly visible from the lateral view during orthodontic treatment.

2

The situation after the bimaxillary corrective osteotomy. The maxilla was moved forward by maxillofacial surgery and the position of the mandible was adjusted.

3

A total of eleven implants were then inserted. Gingiva formers were screw-retained to the exposed implants. In the maxilla, four implants as well as six teeth were to be restored all-ceramic. The seven implants in the mandible were also provided with gingiva formers.
Now the implants had to be prosthetically restored together with the two anterior teeth.

4

Eleven hybrid abutments made of Zolid as well as single-tooth restorations and max. 3-pontic bridges made of Zolid FX were used. Only in the anterior region were the crowns partially veneered, in the posterior region work was completely monolithic.

The complete patient case was published by the trade journal "dental dialogue" and is available online at www.amann-girrbach.com in the download area.

This is happiness! This self-confident laugh of the patient makes all the stress of the protracted treatment a secondary issue.

That's teamwork: DMT Benjamin Votteler, the patient and the clinician, Dr. Feraydoon Sharghi (from the left)

Dentaltechnik Votteler GmbH & Co

"The Zolid DNA zirconia portfolio offers me the right material for every indication and every esthetic requirement."

ZOLID DNA GENERATION – HIGHEST ESTHETICS IN THE ANTERIOR REGION

1

Initial situation. To meet the patient's requirements, the tooth dimensions and tooth shade need to be corrected.

2

From this perspective, the necessary corrections of the tooth position and the dental arch can be seen very clearly.

3

The teeth are prepared and readied for the final restoration.

4

Crowns on the control model to see the relationship between teeth and gingiva.

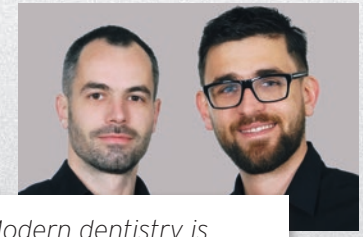
5

The monolithic crowns made of Zolid FX ML fit harmoniously into the overall picture. Both the tooth position and the dental arch could be corrected. The harmonious gingiva defined the final tooth shape.

The portrait photos (before/after) show us a new overall impression. In this case we had to achieve harmony, as well as create symmetry. The patient is overjoyed with her new smile.

"The system helps me to create natural shapes, shades and structures, all of which together create a smile and enable a higher quality of life."

Dentorium
Daniel Žgombić dr. dent. med.



"Modern dentistry is unthinkable without a material like this."

Dental technicians
Mauro Ahmić / Sandi Trkulja
Dental Inpuls, Croatia

Zolid FX Multilayer | Amann Girrbach

ZOLID ESTHETIC MANAGEMENT – AS ESTHETICS ARE NOT HAPPENSTANCE

Amann Girrbach is not only specialized in the production of highly esthetic materials, but also offers a comprehensive range of information and training courses. In combination with the blanks of the Zolid DNA generation, the didactically prepared print and online media as well as courses provide 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

APPLICATION GUIDELINE

Processing guideline laboratory

AMANNGIRRBACH

AUSTRIA (HEADQUARTERS)
Amann Girrbach AG
Koblach, Austria
Fon +43 5523 62333-105
austria@amanngirrbach.com

GERMANY
Amann Girrbach GmbH
Pforzheim, Germany
Fon +49 7231 957-100
germany@amanngirrbach.com

NORTH AMERICA
Amann Girrbach North America, LP
Charlotte, NC, U.S.A.
Fon +1 704 837 1404
america@amanngirrbach.com

BRAZIL
Amann Girrbach Brasil LTDA
Curitiba, Brazil
Fon +55 41 3287 0897
brasil@amanngirrbach.com

ASIA
Amann Girrbach Asia PTE LTD.
Singapore, Asia
Fon +65 6592 5190
singapore@amanngirrbach.com

CHINA
Amann Girrbach China Co., Ltd.
Beijing, China
Fon +86 10 8886 6064
china@amanngirrbach.com

WWW.AMANNGIRRBACH.COM