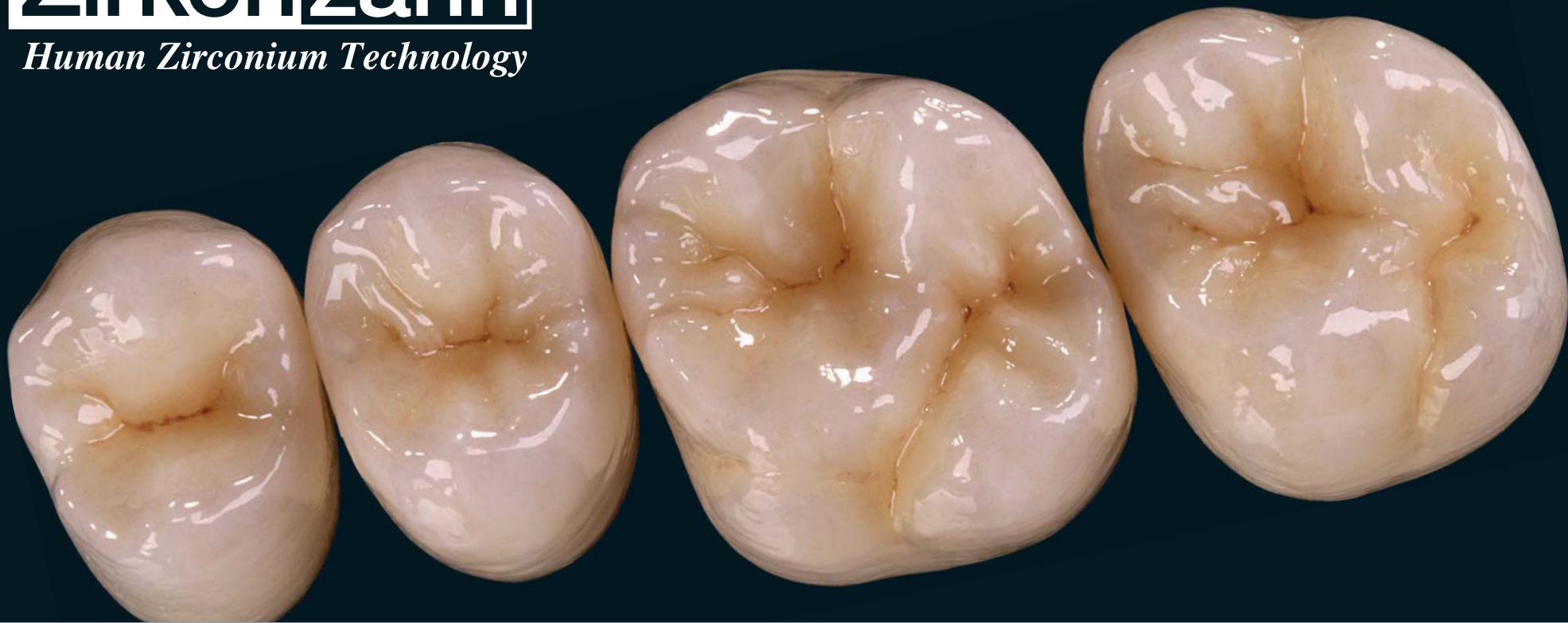


Zirkonzahn®

Human Zirconium Technology



ICE ZIRKON 3D STAINS

by Enrico Steger



VIRTUOSITY OF AESTHETICS

Zeitgeist is the element that drives us. It is the element in which we would like to set new trends, where we want to be at the forefront, philosophise, analyse, try out and enjoy the new variants we are able to realise. With the 3D colours we have made the application technique now even more virtuosic. New colours and glazings enable splendid results, allowing us to measure ourselves against others.

Immerse yourself with us in the wonderful world of our craft and create noble products yourself!

Andreas Steyer







STAINS WITH NATURAL 3D-EFFECT

The ICE Zirkon 3D Stains by Enrico Steger have been developed as 18 new stains for colouring of Prettau® Zirconia, Prettau® Anterior, ICE Zirkon Translucent, ICE Zirkon Ceramics as well as pressed ceramic. They distinguish themselves through their intense three-dimensional depth effect, which allows for a particularly natural and homogeneous surface design of the entire dental restoration. Thanks to their viscous consistency, the colours do not run on smooth surfaces and can hence be applied even in thicker layers. Their microfine ceramic particle structure allows for an even colouring of the restoration. Micro cracks and enamel effects can be integrated in the glazing. Due to their ceramic basis, the colours show inherent gloss. Moreover, their high fluorescence leads to intense colour brilliance. ICE Zirkon 3D Stains by Enrico Steger can also be directly incorporated in the 3D Base Glaze glaze mass. In this way, glaze and stain firing can be conducted in one single work step (All-in-one technique).

All of these possibilities and the internal and external colouring technique simplify the imitation of nature and the individualisation of the dental prosthesis. They are easy to handle and offer stunning results.





TIP

Mix stains in the box well with a spatula before use.

CAUTION!

Stains must not come into contact with water as this could cause them to become whitish.

USE

1. *Clean the sintered structure (full contour structures as well as structures which have been veneered with ICE Zirkon Ceramics).*
2. *Apply ICE Zirkon 3D Stains using a brush (as illustrated in the colouring examples below).*
 - *With the Refreshing Liquid 3D it is possible to dilute the ICE Zirkon 3D Stains. In this way, the colouring time is extended and the colours can be applied homogeneously.*
 - *Refreshing Liquid 3D can also be used for refreshing of dried up stains in the bottle, to again obtain a viscous mass.*
Attention! For this purpose use Refreshing Liquid 3D only in small quantities!
 - *Attention! ICE Zirkon 3D Stains must not be mixed with ceramic masses nor with the Glaze and Glaze Plus glaze masses.*
 - *To reduce the colour intensity of the 3D Stains, they can also be mixed with the 3D Base Glaze glaze mass.*
 - *ICE Zirkon 3D Stains can also be directly incorporated into the 3D Base Glaze glaze mass (All-in-one technique) or applied without glaze mass in the conventional way. It is possible to conduct a basic glaze firing before the stain firing or a final glaze firing after the stain firing.*
 - *Colouring using the All-in-one technique: first, apply a thin layer of 3D Base Glaze glaze mass; then, paint the ICE Zirkon 3D Stains onto the glaze.*
3. *Let the applied mass dry completely before firing (depending on size of the work approx. 6–12 minutes).*



TIP

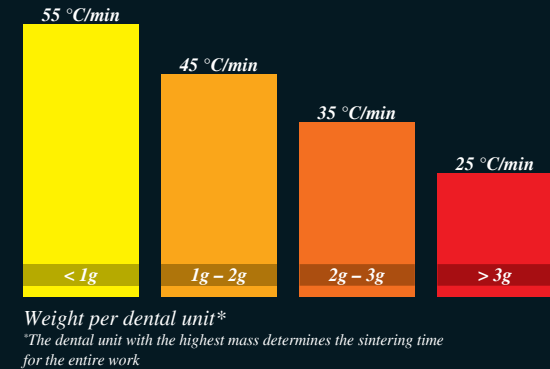
Due to their ceramic basis, ICE Zirkon 3D Stains dry out quickly. If they are stirred with Refreshing Liquid 3D, they remain moist for longer and can be applied in a more even and beautiful way.

CAUTION!

Mix well with a spatula (not with a brush).

4. Firing procedure:

- The indicated firing parameters are only reference values. For optimal results, the values have to be adapted to the relative ceramic furnace, which is being used.
- Ceramic furnace: closing time 6–12 minutes
- **Attention!** Heating rate and cooling rate depend on the size of the zirconia structure (25 °C and 55 °C per minute).
- In case of massive zirconia structures the following applies: the more massive the structure is, the slower the structure has to be heated up and cooled down. Otherwise there is a risk of micro cracks due to temperature-induced stresses (thermal shock).
- After the firing cycle, the furnace needs to remain closed, until it has cooled down to at least 500–700 °C. After opening the furnace, the structure should be removed only when the furnace has reached a temperature of 200 °C.



ICE ZIRKON 3D STAINS ON FULL-CONTOUR ZIRCONIA (PRETTAU® AND PRETTAU® ANTERIOR)

1. All-in-one technique: 3D Base Glaze glaze mass and ICE Zirkon 3D Stains in one single firing

Temperature 800 °C 5 min holding time without vacuum

2. Colouring with more firings: Basic glaze firing, stain firing, final glaze firing

Basic glaze firing at 800 °C 5 min holding time without vacuum*

Stain firing at 800 °C 2 min holding time without vacuum*

Final glaze firing 780–800 °C 1–2 min holding time without vacuum*

**With each of these firings both stains and glaze mass can be incorporated.*



TIP

The best results can be obtained when stain firings are made without vacuum. In this way it is possible to reach the highest possible transparency and the glaze mass and ICE Zirkon 3D Stains can also be applied in thicker layers.

*ICE ZIRKON CERAMICS AND ICE Zirkon 3D Stains ON ZIRCONIA (PRETTAU® AND PRETTAU® ANTERIOR)**1. Ceramic Washbrand*

Temperature 800 °C 10 min holding time with vacuum

The washbrand is mandatory. For veneering, all types of Zirkonzahn ICE ceramic masses can be used. The ceramic needs to be applied in very thin layers.

The vacuum needs to be maintained during the entire firing (also during holding time).

2. Basic glaze firing on full-contour zirconia elements:

Temperature 800 °C 5 min holding time without vacuum

The 3D Base Glaze glaze mass is applied in thin layers on the full-contour zirconia elements. The ICE Zirkon 3D Stains can be directly incorporated into the glaze mass. However, they can also be applied on the Washbrand (Liner).

3. Ceramic dentin firings

Temperature 800 °C 4–5 min holding time with vacuum

Maintain the vacuum during the entire firing (also during holding time).

For all further ceramic firings, lower the final temperature about approx. 5–10 °C!

4. Stain fixation firing

Temperature 770 °C 1 min holding time without vacuum

If a restoration is veneered with ceramics, the stains can be fixed at 770 °C and with a holding time of 1 min. In this way further shrinking (glazing) of the ceramics can be avoided and further stain firings can be conducted.

5. Final stain – glaze firing

Temperature 780–800 °C 1–2 min holding time without vacuum





FIRED STRUCTURE BEFORE COLOURING



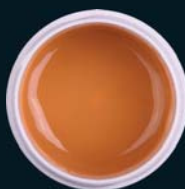
COLOURING EXAMPLE
ANTERIOR TOOTH PALATAL

01

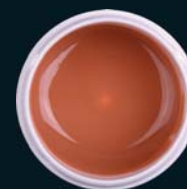




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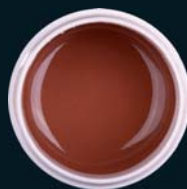
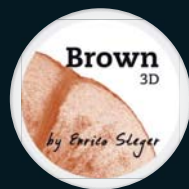


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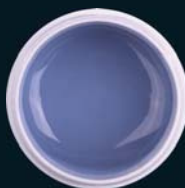


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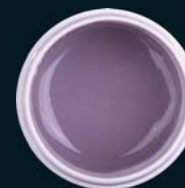




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BEFORE



AFTER



FIRED STRUCTURE BEFORE COLOURING



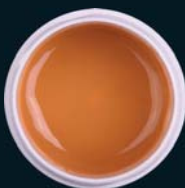
COLOURING EXAMPLE
ANTERIOR TOOTH LABIAL

01

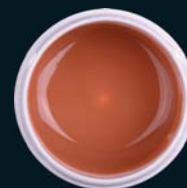




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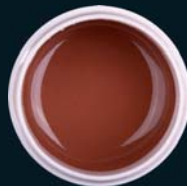


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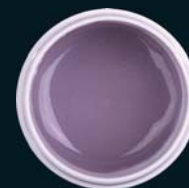




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BEFORE



AFTER



FIRED STRUCTURE BEFORE COLOURING



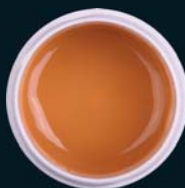
COLOURING EXAMPLE
MOLAR OCCLUSAL

01

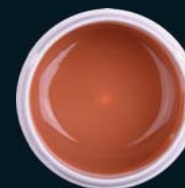




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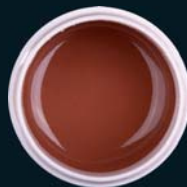
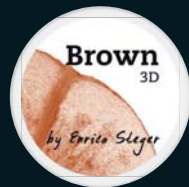


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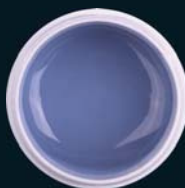


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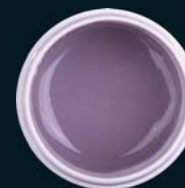




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BEFORE



AFTER



FIRED STRUCTURE BEFORE COLOURING



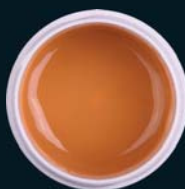
COLOURING EXAMPLE
MOLAR BUCCAL

01

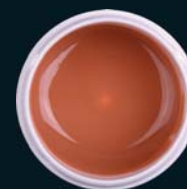




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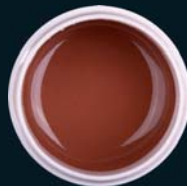


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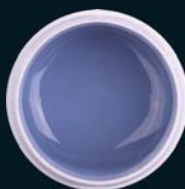


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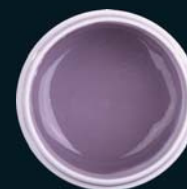




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BEFORE



AFTER





















PRODUCT OVERVIEW



Set Stains 3D by Enrico Steger

Consisting of:

18x stain colours,

1x glazing material,

1x Refreshing Liquid 3D,

1x Brush 0,

1x Brush 2,

1x glass plate

Item number: MFAC2101

 *Stain Colour 3D White*

Content: 1 g

Item number: MFAC0201

 *Stain Colour 3D Beige*

Content: 1 g

Item number: MFAC0301

 *Stain Colour 3D Vanilla*

Content: 1 g

Item number: MFAC0401

 *Stain Colour 3D Orange 1*

Content: 1 g

Item number: MFAC0501



Refreshing Liquid 3D by Enrico Steger

Content: 10 ml

*For freshening up the ICE Zirconia Stain
Colours 3D by Enrico Steger*

Item number: MFAC2001

 *Stain Colour 3D Orange 2*

Content: 1 g

Item number: MFAC0601

 *Stain Colour 3D Brown*

Content: 1 g

Item number: MFAC0701

 *Stain Colour 3D Blue 1*

Content: 1 g

Item number: MFAC0801

 *Stain Colour 3D Blue 2*

Content: 1 g

Item number: MFAC0901

 **Stain Colour 3D LuNe**

Content: 1 g

Item number: MFAC1011

 **Stain Colour 3D Black**

Content: 1 g

Item number: MFAC1101

 **Stain Colour 3D Tissue 1**

Content: 1 g

Item number: MFAC1201

 **Stain Colour 3D Tissue 2**

Content: 1 g

Item number: MFAC1301

 **Stain Colour 3D Transpa 1**

Content: 1 g

Item number: MFAC1401

 **Stain Colour 3D Transpa 3**

Content: 1 g

Item number: MFAC1501

 **Stain Colour 3D Base A**

Content: 1 g

Item number: MFAC1601

 **Stain Colour 3D Base B**

Content: 1 g

Item number: MFAC1701

 **Stain Colour 3D Base C**

Content: 1 g

Item number: MFAC1801

 **Stain Colour 3D Base D**

Content: 1 g

Item number: MFAC1901

 **Glaze material 3D Base Glaze**

Content: 3 g

Item number: MFAC0101



















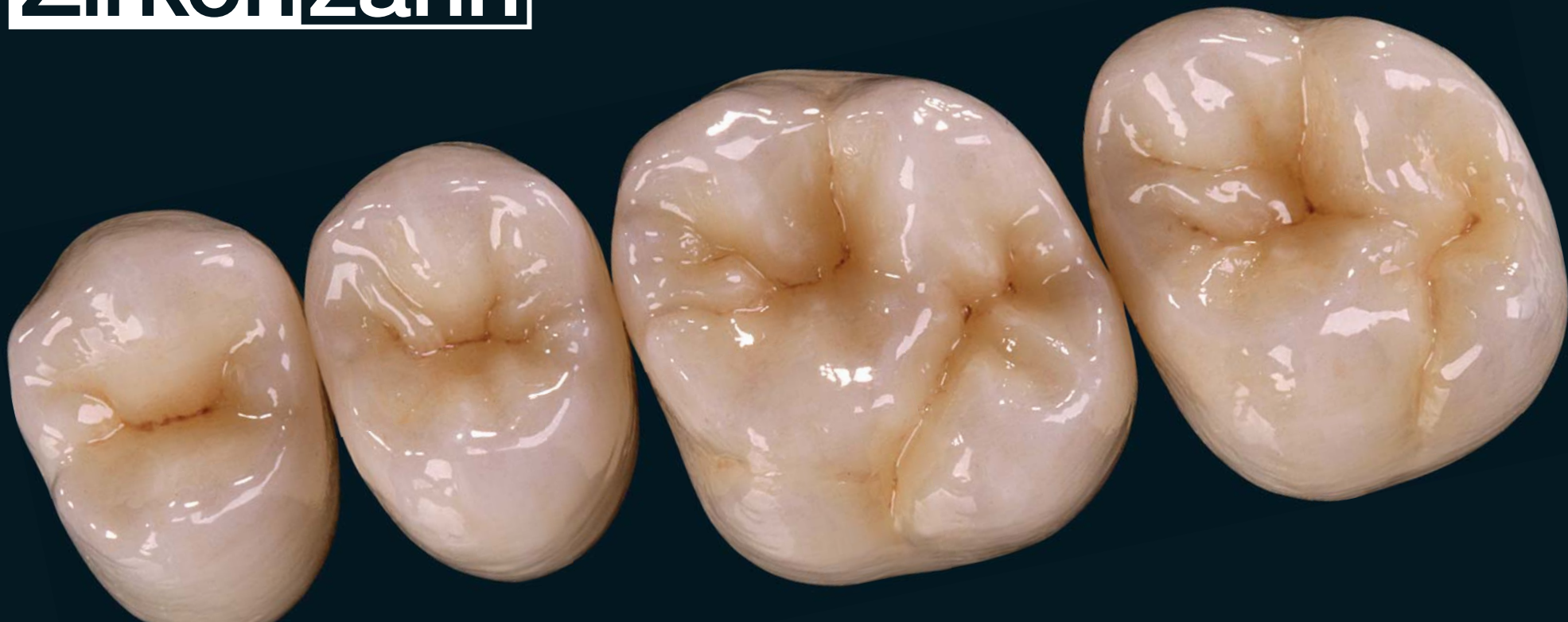








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ENGLISH



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All information is subject to change. Errors and omissions excepted. Version: 21.11.2014