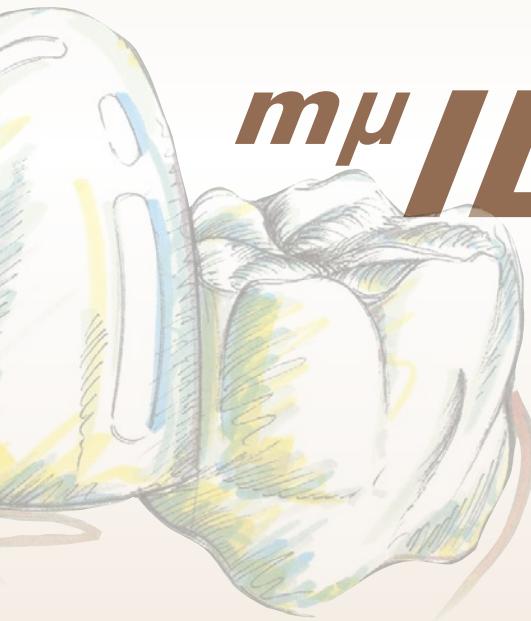


EXCLUSIVE EDITION BY



m μ ILLUSION

Color and Micro-Layering Technique



TESTIMONIALS ...

"Finally, we are able to achieve the highest level of esthetics even with monolithic restorations, both in the posterior and anterior regions, and with much less work and time.

mpILLUSION assortment, with its colors and pastes, leave nothing to be desired. There are no limits to creativity.

*With ***mpILLUSION*** you have the future of monolithic restoration in your hands."*



Peter Kraemer (ZT / CDT)

- Successful completed training to become a certified dental technician in Germany 1984-1987
- 1987-1995 employments at commercial dental laboratories in Germany
- Since 1995 self-employed laboratory owner with branch in Portugal
- CAD/CAM expert and specialist for ceramic work such as crowns, bridges, veneers, implant-supported restorations
- International course and trainer activities for exocad and dental ceramics such as ***mpILLUSION***

COLOR AND MICRO-LAYERING TECHNIQUE



*WHEN YOU CAN NO LONGER DISTINCT
THE ARTIFICIAL FROM THE NATURAL*



WE HAVE ACHIEVED OUR GOAL

THE PHILOSOPHY

^{mm}ILLUSION fulfils the demand to meet the changed requirements for the production of monolithic and ceramic restorations. With an exclusive **^{mm}ILLUSION** range of stains and pastes that are perfectly coordinated in terms of color, it is possible to create perfect restorations with just one firing. The potential of **^{mm}ILLUSION Pastes** is particularly evident in high-end anterior tooth reconstruction. In the cut-back technique, supplemented by micro-layering, the works convince with optimal light dynamics, of course while guaranteeing translucency, opalescence and fluorescence. Even with a small layer thickness of 0.2 mm to 0.8 mm, **^{mm}ILLUSION Pastes** create works with a sculptural depth effect like natural teeth.

LIGHT AND SHADE

The three-dimensional **^{mm}ILLUSION Pastes** can be applied to the tooth surfaces with minimal effort.

Light and shadow reinforce the textures on the tooth surface in different light conditions.

The desired result is already visible when applying the colors and pastes and thus enables optimal control of the firing result. Due to the special property of plasticity, minimally invasive layering can be carried out to adjust the subtleties in shape and morphology.

m^μILLUSION FROM PASSION TO PERFECTION



NATURAL FLUORESCENCES · AESTHETIC COLOR PLAY · SCULPTURAL DEPTH EFFECT

AREAS OF APPLICATION

mpILLUSION Color and Paste

for the production and characterisation of crowns & bridges made of:

- Monolithic zirconium dioxide (Y-TZP)
- Metal ceramic
- Pressed ceramic
- Lithium disilicate (monolithic)
- Lithium disilicate (veneered)
- Zirconium dioxide (Y-TZP), veneered



VIDEO

Characterisation
of an anterior crown



VIDEO

Characterisation
of a posterior crown

Particularly suitable for the characterisation of monolithic anterior crowns and bridges using the

- Cut-back / Color and Micro-Layering Technique

THE *^m**μ**ILLUSION* - REALITY

- ✓ The *^m**μ**ILLUSION* range with its sophisticated system of stains and pastes is suitable for covering the entire color spectrum of teeth and gingiva.
- ✓ Amazingly simple for reliable, natural results with high flexibility
- ✓ Fast with the 1-firing technique and individual with the 2-firing technique
- ✓ High colour stability for maximum aesthetics
- ✓ Controlled, targeted working before firing, thanks to low shrinkage and color stability, achieving the same result after firing.
- ✓ Natural translucency, opalescence and fluorescence
- ✓ Nature-identical appearance of the tooth surfaces due to natural light refraction index
- ✓ Three-dimensionality and light dynamics through layer thicknesses of 0.8 mm cut-back technique
- ✓ Unique range of gingiva colors and pastes



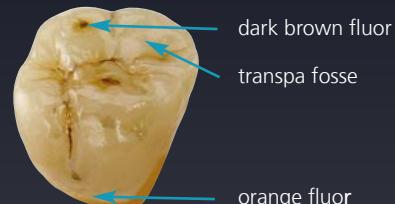
LITTLE CHARACTERISATION EFFORTS IN 4 STEPS

1 Firing, amazingly simple, little effort

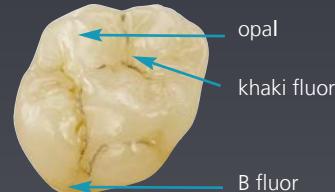


1. Apply the glaze over the entire surface
2. Paint incisal or cusp tips with white fluor
3. More details such as effect colors also possible
4. Firing

1 Firing, with high characterisation



1. Apply the glaze over the entire surface
2. Adjust the base color with corresponding body colors
3. Apply effect colors to the cervical and proximal areas
4. Paint incisal or cusp tips with incisal or effect colors
5. Use paste to accentuate or to model the surface
6. Characterise occlusal surface with transpa fosse or effect colors
7. Firing



UNLIMITED INDIVIDUALITY

^{mp}ILLUSION supports economical storage of CAD/CAM blanks. It is also possible to adjust the original color by up to three shades lighter or darker.

This means that different colors and thus different characteristics of teeth of all ages can be created from the same framework material.

Whether youthful or age-appropriate, usually the color design of the gingiva represents a major challenge. However, unlimited design options are possible with **^{mp}ILLUSION Gingiva Color** and **Paste**. Whether marginal or attached gingiva, **^{mp}ILLUSION** has the properties to imitate the individuality of a natural gingiva aesthetic with little effort.

THE ILLUSION OF A NATURAL TOOTH

MONOLITHIC CROWNS AND BRIDGES

Monolithic crowns and bridges made of multilayer zirconium dioxide ceramics show a static incisal-dentine gradient due to the product-specific vertical color layers. To this day, individual features are created, especially in the anterior region, using additional ceramic veneers or imitated by using stains, whereby aesthetic compromises have to be made with the pure staining. Thanks to the unique consistency of the **[™]ILLUSION Color** and **Paste** ceramics, individual micro-layers are now also possible in the anterior region. There is no need for layering with zirconium veneering ceramics.

The unique consistency and particle distribution of the **[™]ILLUSION Paste** ceramic enables its spatially stable and precise application. The high three-dimensional stability and the color-fast ceramic structure of the pastes make work easier and enable visual checks at all times.

The special manufacturing process and the complex quality assurance measures in the production of **[™]ILLUSION Color** and **Paste** guarantee a dense, homogeneous surface and all the advantages of a modern dental ceramic in terms of biocompatibility, physical and chemical properties and wear performance.



1 FIRING, AMAZINGLY SIMPLE!

1-
FIRING
TECHNIQUE



prepared,
sanded crown

applied
glaze

little
characterisation

finished

CUT-BACK TECHNIQUE

2-
FIRINGS
TECHNIQUE



reduced
zirconia crown



applied
mamelons

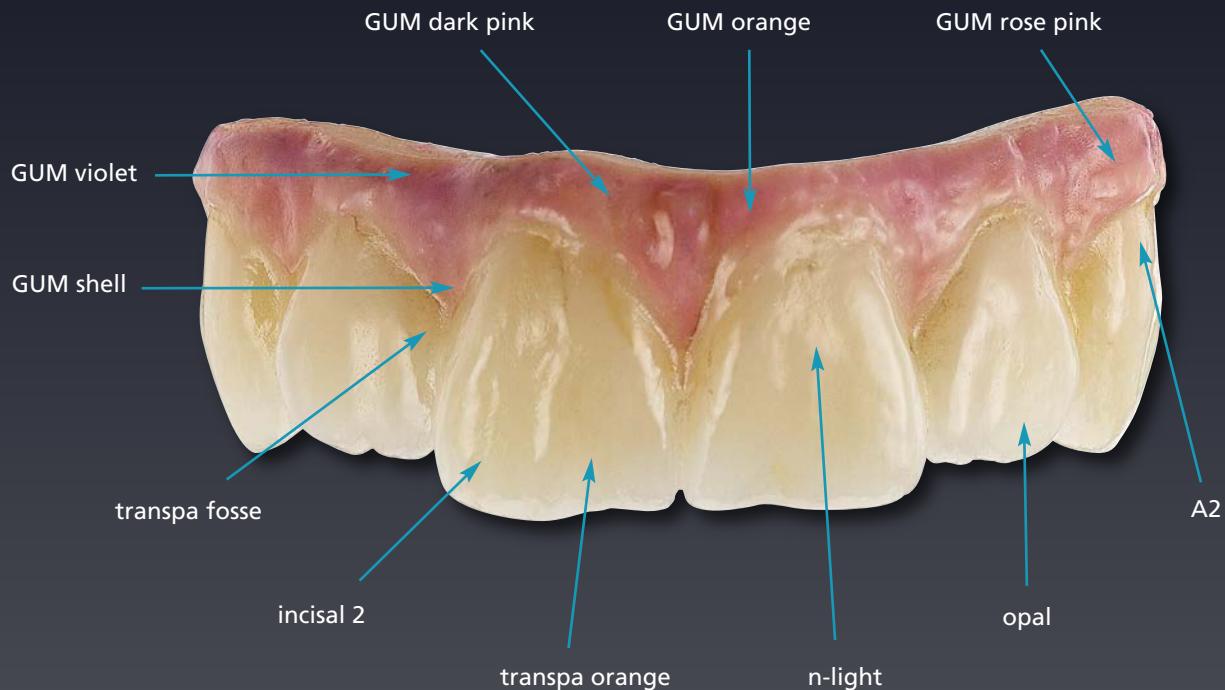


after the 1st firing

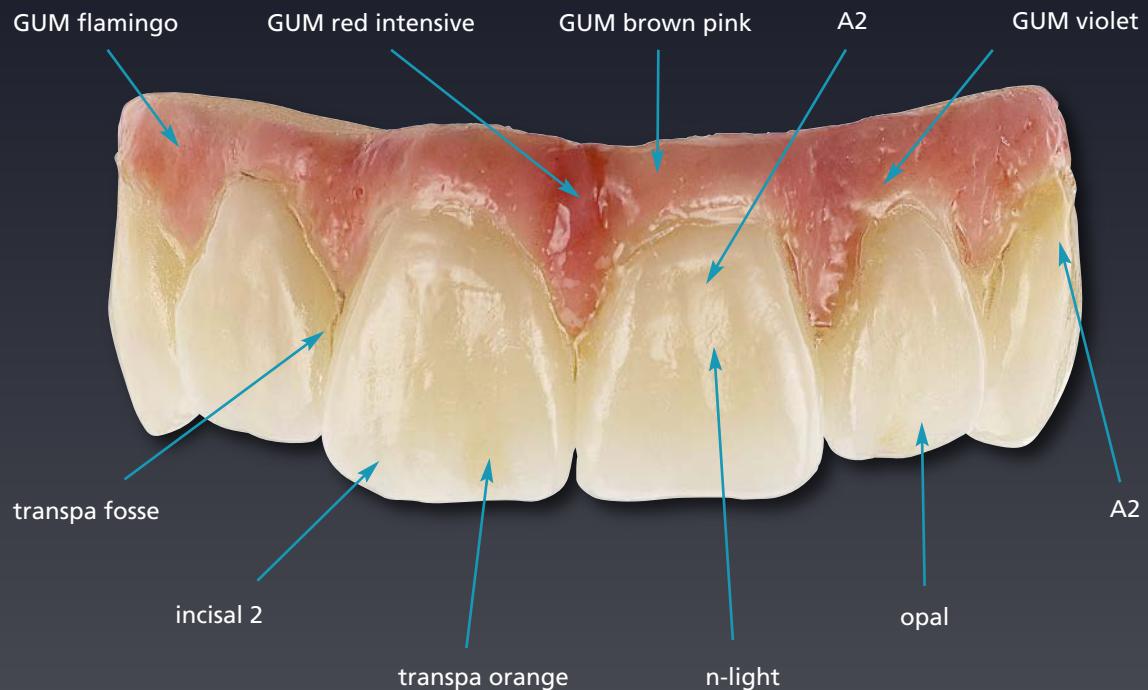


after glaze firing

m^μILLUSION - UNLIMITED INDIVIDUALITY



BASED ON THE SAME CONDITIONS



m^μILLUSION APPLICATION EXAMPLES



sanded zirconia frame



1st washbake
GUM rose pink



2nd washbake
GUM coral red intensive



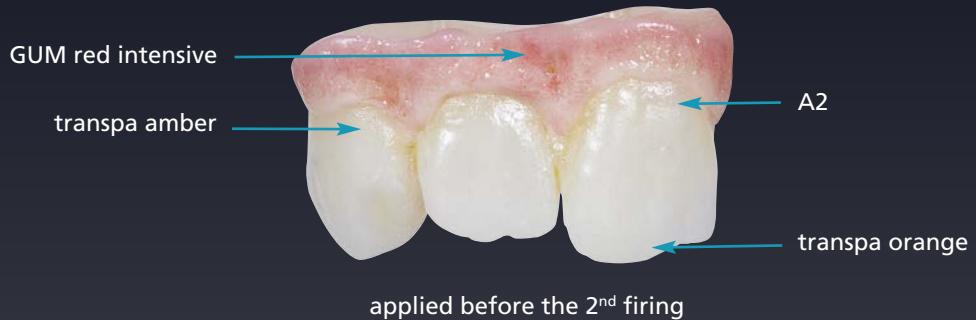
applied GUM shell



applied GUM C34



1st firing



***m^uILLUSION* Color**

Body

	Quantity	REF	Application
● A fluor	4 g	1019910	
● B fluor	4 g	1019911	
● C fluor	4 g	1019912	
● D fluor	4 g	1019913	Characterisation of A-D base colors



Gingiva

	Quantity	REF	Application
● GUM red purple	3 g	1019926	
● GUM rose	3 g	1019927	
● GUM rose pink	3 g	1019928	
● GUM coral red intensive	3 g	1019930	Imitation of gingiva parts
● GUM red intensive	3 g	1019931	



Effect	Quantity	REF	Application
orange fluor	3 g	1019915	Characterisation of labial and occlusal surfaces
smoke fluor	3 g	1019916	Reducing the brightness value, achieving depth effects
red brown fluor	3 g	1019918	Imitation of depth effects
light orange fluor	3 g	1019919	Characterisation of labial and occlusal surfaces
khaki fluor	3 g	1019920	Characterisation of labial and occlusal surfaces
olive fluor	3 g	1019921	Characterisation, especially with the shades A1, A2, A3
grey fluor	3 g	1019922	Reducing the brightness value, intensification of horizontal flanges
dark brown fluor	3 g	1019924	Imitation of depth effects
yellow fluor	3 g	1019925	Imitation of depth effects



Enamel	Quantity	REF	Application
white fluor	3 g	1019914	Enamel spots, hyperplasia, calcium spots
pigeon blue fluor	3 g	1019917	Enhancement of blue translucencies
blue fluor	3 g	1019923	Enhancement of blue translucencies



m^μILLUSION Paste

Enamel	Quantity	REF	Application
 incisal 2	4 g	1019932	Characterisation in the incisal area
 n-light	4 g	1019935	Characterisation in the incisal area neutral, brighten
 transpa blue	4 g	1019936	Characterisation in the incisal area, intensive
 clear	4 g	1019941	Characterisation in the incisal area
 bleach 1	4 g	1019942	Brighten, very intensive (pearl incisal edge)
 glaze	4 g	1019943	Design of the surface texture



Transpa	Quantity	REF	Application
 transpa orange	4 g	1019937	
 transpa pink	4 g	1019938	
 transpa amber	4 g	1019939	
 opal	4 g	1019940	Characterisation of transparency effects in the incisal area



Gingiva	Quantity	REF	Application
 GUM violet	4 g	1019944	
 GUM brown pink	4 g	1019945	
 GUM orange	4 g	1019946	
 GUM flamingo	4 g	1019947	
 GUM shell	4 g	1019948	Imitation of gingiva parts
 GUM dark pink	4 g	1019949	
 GUM dark brown	4 g	1019950	
 GUM neutral	4 g	1019951	
 GUM C34	4 g	1019952	



Dentine	Quantity	REF	Application
 A2	4 g	1019933	Characterisation of the A2 base shade



Character	Quantity	REF	Application
 transpa fosse	4 g	1019934	Insertion of individual characteristics



***mμ*ILLUSION Glaze**

	Quantity	REF	Application
glaze fluor magic	5 g	1019960	Contains a higher proportion of fluorescent particles that are visible at both 365 nm and 395 nm
glaze fluor	5 g	1019953	Fluorescent glaze
	7 g	1019959	
glaze	5 g	1019954	Non-fluorescent glaze



***mμ*ILLUSION Fluid**

	Quantity	REF	Application
glaze liquid	25 ml	1019955	For processing <i>mμ</i>ILLUSION Color and Glaze
paste liquid	25 ml	1019956	For processing <i>mμ</i>ILLUSION Color and Paste

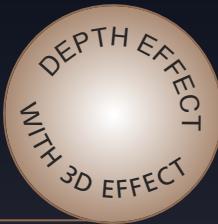


***mμ*ILLUSION Brushes**

	Quantity	REF	Ø	
Brush no. 2	1 pc.	1019957	2.2 mm	8 mm
Professional coloring brush made of synthetic hair, made in Germany				



Brush no. 4	1 pc.	1019958	5.4 mm	9 mm
Very precise opaquer brush made of synthetic hair, made in Germany				



LAYER THICKNESSES FOR THE MICRO-LAYERING TECHNIQUE

0.02 mm 

- **^mILLUSION Color** with excellent color coverage from 0.02 mm.



^mILLUSION Paste



Product 1



Product 2

- **^mILLUSION** dental ceramic pastes present monolithic crowns from 0.2 mm a three-dimensional structure with lifelike translucency, natural fluorescence and opalescence. The unique paste consistency and particle distribution ensures mouldability during layering and stability during firing with layers up to 0.8 mm.

3 SETS FOR ALL APPLICATIONS



■ **Basic Set**

an impressive large variety

■ **Professional Set**

a well-thought-out system of stains and pastes for the full range of all types of monolithic or ceramic restorations

■ **Gingiva Set**

for imitating the natural gingiva

mµ ILLUSION Color and **Paste** gingiva shades are unique as they enable the design of the gingiva parts of monolithic or ceramic restorations whenever soft tissue is missing, for example when working on implant-supported restorations or bridges.

The new **mµ ILLUSION Paste** gingiva shades in combination with the **mµ ILLUSION Color** gingiva shades cover the entire shade spectrum of the marginal gingiva, the attached gingiva, up to the alveolar mucosa in the fold area.

DELIVERY FORMS

***mp*ILLUSION Basic Set**

REF 1019965

Color A fluor 4g	Color white fluor 3g	Color red brown fluor 3g	Glasur glaze fluor 5 g
Color B fluor 4g	Color orange fluor 3g	Color light orange fluor 3g	Fluid glaze liquid 25 ml
Color C fluor 4g	Color smoke fluor 3g	Color dark brown fluor 3g	Fluid paste liquid 25 ml
Color D fluor 4g	Color pigeon blue fluor 3g	Paste incisal 2 4g	Brushes no. 2 / no. 4
		Paste A2 4g	

***mp*ILLUSION Professional Set**

REF 1019967

Color khaki fluor 3g	Color yellow fluor 3g	Paste transpa orange 4g	Paste bleach 1 4 g
Color olive fluor 3g	Paste transpa fosse 4g	Paste transpa pink 4g	Paste glaze 4 g
Color grey fluor 3g	Paste n-light 4g	Paste transpa amber 4g	Fluid glaze liquid 25 ml
Color blue fluor 3g	Paste transpa blue 4g	Paste opal 4g	Fluid paste liquid 25 ml
		Paste clear 4g	Brushes no. 2 / no. 4

***mp*ILLUSION Gingiva Set**

REF 1019966

Paste GUM violet 4g	Paste GUM shell 4g	Paste GUM brown pink 4g	Color GUM red intensive 3 g
Paste GUM dark pink 4g	Paste GUM dark brown 4g	Color GUM red purple 3g	Glasur glaze 5 g
Paste GUM orange 4g	Paste GUM neutral 4g	Color GUM rose 3g	Fluid glaze liquid 25 ml
Paste GUM flamingo 4g	Paste GUM C34 4g	Color GUM rose pink 3g	Fluid paste liquid 25 ml
		Color GUM coral red intensive 3 g	Brushes no. 2 / no. 4

CHARACTERISTICS

mpILLUSION Color

- ✓ characterises the horizontal color and transparency gradations of multilayer blanks.
- ✓ provides lithium disilicates with shades like natural teeth.
- ✓ creates light dynamics that can otherwise only be achieved with layered crowns and bridges.

mpILLUSION Paste

- ✓ for homogeneous surfaces and sculptural depth effect.
- ✓ for controlled, targeted work, thanks to low shrinkage and color stability before and after firing.
- ✓ for micro-layering in the cut-back technique, structures from 0.2 mm to 0.8 mm are possible with one firing.

mpILLUSION Gingiva Color und Paste

- ✓ are an exclusive range.
- ✓ for the natural appearance of gums through individual design.

MATERIAL FEATURES

m^uILLUSION Color and Paste

- ✓ have very low shrinkage and high color stability, with the same results before and after firing.
- ✓ for precise and stable application with very good moulding properties.
- ✓ reduce the storage of CAD/CAM blanks. The original color can be corrected by up to three shades lighter or darker.



CHEMICAL COMPOSITION

m^uILLUSION Paste:

SiO₂, Al₂O₃, K₂O, Na₂O, Li₂O, SrO, B₂O₃, CeO₂, ZnO + pigments

m^uILLUSION Color:

SiO₂, Al₂O₃, K₂O, Na₂O, Li₂O, CaO, SrO, B₂O₃, ZnO, F + pigments

Pigments:

Inorganic color pigments with ceramic host lattices

Main components of the paste base

1,3-butanediol, purified water



TECHNICAL DATA

***mp* ILLUSION Paste** physico-chemical properties according to DIN EN ISO 6872

Property	Specification	Measurement values
Coefficient of thermal expansion (25 - 475 °C) [$10^{-6} \cdot \text{K}^{-1} \pm 0.5$]	2 x: 9.5 4 x: 9.5	2 x: 9.5 4 x: 9.5
Glass transition temperature Tg [°C ± 20]	2 x: 495 4 x: 495	2 x: 495 4 x: 495
Flexural strength [MPa]	≥ 50	130 - 150
Solubility [$\mu\text{g}/\text{cm}^2$]	< 100	19 - 35

***mp* ILLUSION Color** physico-chemical properties according to DIN EN ISO 6872

Property	Specification	Measurement values
Coefficient of thermal expansion (25 - 450 °C) [$10^{-6} \cdot \text{K}^{-1} \pm 0.5$]	2 x: 10.0 4 x: 10.0	2 x: 9.8* 4 x: 9.5*
Glass transition temperature Tg [°C ± 20]	2 x: 460 4 x: 460	2 x: 455* 4 x: 455*
Flexural strength [MPa]	≥ 50	> 130*
Solubility [$\mu\text{g}/\text{cm}^2$]	< 100	complies with*

*) Data for base material

FIRING PARAMETERS

Firing parameters	Start temperature	Pre-Dry	Closing time	Heat rate	Vacuum start	Final temperature	Holding time
	(°C)	(min)	(min)	(°C/min)	(°C)	(°C)	(min)
Monolithic zirconium dioxide (Y-TZP)	400	3	4	45	670	770	1
Metal-ceramic	400	3	4	45	670	770	1
Pressed ceramic	400	3	4	45	670	770	1
Lithium-Disilicate (monolithic)	400	3	4	45	670	720	2
Lithium-Disilicate (veneering ceramic)	400	3	4	45	670	720	2
Zirconium dioxide (Y-TZP), veneered	400	3	4	45	670	720	2

Note: The above firing temperatures were determined in the Zubler Vario 300 and are recommended values. Adjustments to the firing program may be necessary for other furnace types.

Please note: For voluminous restorations, open the furnace with an opening time of 2 minutes!

Note: With multiple firings, the final temperature can be reduced by 10 - 20 °C depending on the degree of gloss!

FRAMEWORK AND VENEERING MATERIALS

mpILLUSION Color and ***Paste*** are intended exclusively for use on framework and veneering materials listed below:

- Fully anatomical crowns and bridges made of stabilised tetragonal zirconium dioxide (Y-TZP) with a thermal expansion of approx. $10.6 \cdot 10^{-6} \cdot K^{-1}$ (25 - 500 °C). Zirconia veneered crowns and bridges made of stabilised tetragonal zirconium dioxide (Y-TZP) with a thermal expansion of approx. $10.6 \cdot 10^{-6} \cdot K^{-1}$ (25 - 500 °C).
- Veneered lithium silicate glass ceramic, with a thermal expansion of approx. $10.0 \cdot 10^{-6} \cdot K^{-1}$ (25 - 500 °C).
- Frameworks made of pressed ceramic with a CTE value of approx. $9.5 \times 10^{-6} \times K^{-1}$
- Metal-ceramic with a CTE value of approx. 13.0 ± 0.5 (25 - 500 °C) [$\cdot 10^{-6} \cdot K^{-1}$]

Further processing instructions and MSDS are available online at www.merz-dental.de/mpillusion.





PERFECT MATCH OF EFFICIENCY AND NATURAL AESTHETICS USING
m^uILLUSION COLOR FOR A CHROMATIC AESTHETIC DESIGN AND
m^uILLUSION PASTE FOR THE SCULPTURAL EFFECT OF DEPTH

A detailed, artistic illustration of a tooth's cross-section, showing the internal structure with various shades of green, yellow, and brown.

m μ **ILLUSION**

Color and Micro-Layering Technique

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1092466 /2025-03

Merz Dental is certified according to EN ISO 13485 and thus offers the security and advantages of a future-oriented quality management system.

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