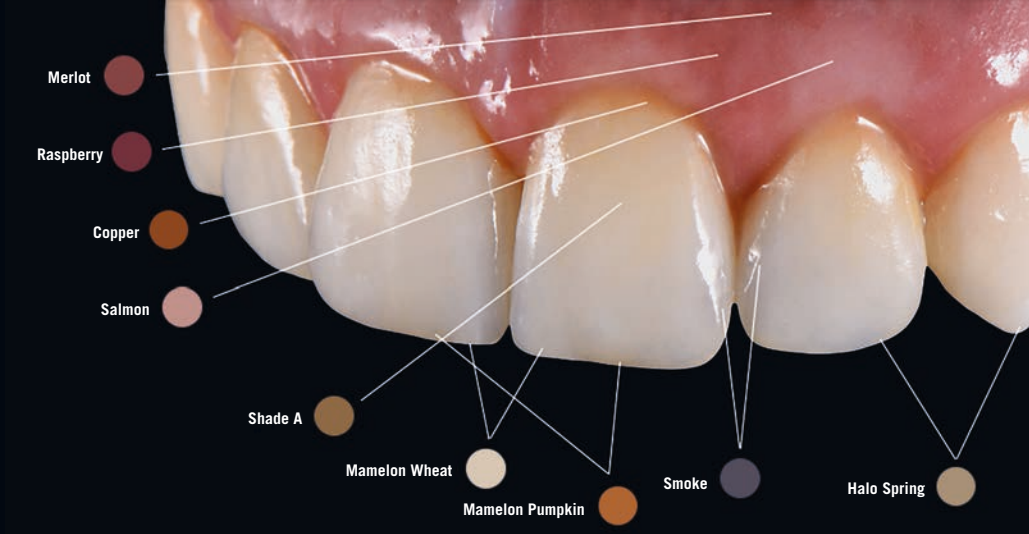
miyo liquid ceramic

miyo pink liquid ceramic



PROCESSING INSTRUCTION

English

JENSEN DENTAL

miyo liquid ceramic

Jensen Dental

Over the last 30 years we've grown from a dental alloy company into a complete provider of quality products, systems, education and technical support for the dental laboratory industry.

We strive for one on one relationships with our customers, through our Dental Technology trained staff who are committed to making you and your dental laboratory more effective, efficient and successful through innovative Jensen products.

Jensen Dental is constantly listening to your insights on how we can improve the products and services we offer, it's very simple, your success is our success.

Content

Cover photo: MiYO work by Maxim Vorkul

1 MiYO & MiYO pink

liquid ceramic systems

MiYO and MiYO pink works by James Choi

1.1 Product description, intended use and clinical benefit

The materials manufactured and sold by Chemichl AG are dental ceramic medical products intended exclusively for dental use. The medical product group „dental ceramics“ includes powders and pastes as well as modeling and mixing liquids. The dental ceramic medical products represent „semi-finished products“ which are processed into dental restorations by the trained dental technician/dentist and then placed in the patient‘s oral cavity by the dentist.

1.2 Material and indication

Jensen currently offers two MiYO liquid ceramic systems: MiYO for teeth and MiYO pink for tissue.
Both systems are a unique finishing system made of paste opalescent and fluorescent layer materials for coloring, structuring and glazing.
With MiYO you can easily and quickly achieve high aesthetic results, comparable to layered restorations in the same time it would take if you were just staining.
MiYO Color consists of different types of self-glazing colors with varying levels of translucency, each uniquely formulated to replicate nature's own tooth and tissue color and structure, such as incisal translucency, mamelons, crack lines, halos, and gingival tissue.
Over MiYO Color we layer MiYO Structure. With MiYO Structure you can create depth, vitality, and texture found in natural enamel and tissue, in unprecedented thicknesses of 0.1 mm - 0.2 mm. Due to the high stability, individual surface structures can easily be integrated into the paste with a brush.
The low firing temperature does not change the characteristics of the surface, so reliable and aesthetic results are achieved with only one or two fires.

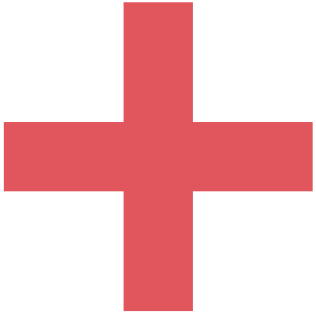
MiYO IS DESIGNED FOR:
(Color, Structure and HT Structure material)

- **Monolithic Zirconia**
- **Zircon dioxide**
- **Lithium Disilicate**
- **PFZ (eg. InSync ZR)**
- **PFM (eg. InSync MC)**
- **Press to Zirconia**

MiYO PINK IS DESIGNED FOR:
(Color and Structure material)

- **Monolithic Zirconia**
- **Zircon dioxide**
- **Lithium Disilicate**
- **PFZ (eg. InSync ZR)**
- **PFM (eg. InSync MC)**

1.3 Material characteristics and advantages



+ Reliable results every time
+ Easy handling paste materials
+ Economical and time saving through fast working processes
+ MiYO Color with perfectly adjusted fluorescence and opacity for contrast and depth
+ MiYO Structure - unique structure pastes
+ Natural refractive index of MiYO Structure is visible on monolithic crowns from a layer thickness of 0.1 mm
+ High color stability
+ Minimal shrinkage
+ Detailed esthetic results by controlling shape, surface and structure before the firing cycle

1.4 Instructions for use

- Do not pour surplus liquid out of the container. Mix it back into a paste.
- Mix MiYO Color, MiYO Structure and Glaze Paste thoroughly with a metal-free spatula before each use.
- The pastes must not come into contact with water.
- Always use a clean and dry brush.
- Store in a dry place.

1.5 Technical data

	type	class	CTE 2x firing (25 - 500°C) [$*10^{-6}$ K^{-1}] ± 0,5	CTE 4x firing (25 - 500°C) [$*10^{-6}$ K^{-1}] ± 0,5	Tg* 2x / 4x firing [°C] ± 20	Chemical solubility		3 point bend test	
						ceramic [µg/cm²]	according to ISO 6872 [µg/cm²]	ceramic [MPa]	according to ISO 6872 [MPa]
MiYO Color	I	1b	7,5	-	490	< 100	< 100	≥ 50	> 50
MiYO Structure	I	1b	7,4	7,4	485	< 100	< 100	≥ 50	> 50
MiYO HT Structure	I	1b	8,2	8,2	520	< 100	< 100	≥ 50	> 50

Characteristics tested in accordance with ISO 6872 and ISO 9693. I * For Tg 2x / 4x less than 500°C, the CTE value [25°C -TG] is specified.

1.6 MiYO system components

TRANSLUCENT

- MiYO Color fluorescent and translucent. As body stain for effects and as value enhancer.

Body stain

- Trans Shade A
- Trans Shade B
- Trans Shade C
- Trans Shade D

Value enhancer

- Trans Lumin
- Trans Lumin plus
- Trans Smoke
- Trans Slate

Effect material

- Trans Straw
- Trans Sage
- Trans Lotus
- Trans Clementine
- Trans Storm
- Trans Cobalt
- Trans Sunflower
- Trans Garnet*

* non fluorescent

HALO

- MiYO Color fluorescent with medium opacity, for reproducing the „Halo“ effect in the enamel area.

- Halo Spring
- Halo Autumn

MAMELON

- MiYO Color with high opacity and reduced fluorescence.

- Mamelon Wheat
- Mamelon Coral
- Mamelon Pumpkin

COLOR

- MiYO Color markable stains.

- Snow
- Linen
- Fissure (powder)
- Moss
- Night

STRUCTURE

- MiYO Structure - structure pastes for layering.
- Outstanding high stability.
- Individual design of the surface structure with a brush.
- Natural refractive index of MiYO Structure is visible on monolithic crowns from a layer thickness of 0,1 mm.
- Low firing temperature preserves the surface design.
- No additional glaze firing needed.
- HT Structure - high temperature structure pastes for layering. For restorations with large volume.

Available as:

- Structure Window transparent
- Structure Ghost whitish translucent
- Structure Enamel classic enamel 59
- Structure Ice bluish opalescent
- Structure Blush orange-reddish opalescent
- HT Structure Window transparent
- HT Structure Enamel classic enamel 59

GLAZEPASTE

- InSync Glaze Paste Fluor: Due to its unique glass matrix, the desired result is achieved after the first firing.

LIQUIDS

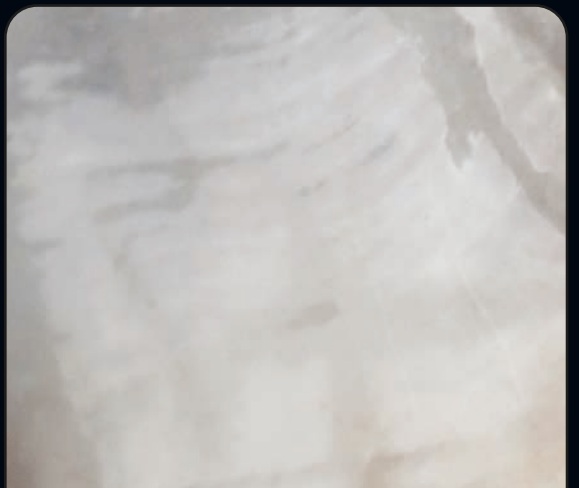
- InSync one-for-all Glaze Liquid universally applicable for the InSync and MiYO system.

MiYO Color before firing

MiYO Color after firing

MiYO Structure before firing

MiYO Structure after firing



1.7 MiYO pink system components

GINGIVA TRANSLUCENT

- MiYO Gingiva Color translucent.

Trans Raspberry

Trans Copper

Trans Midnight

Trans Carnation

Trans Garnet

GINGIVA COLOR

- MiYO Gingiva Color: markable stains.

Flamingo

Crimson

Plum

Merlot

Sorbet

Salmon

Sable

Thistle

Venule (powder)

Hibiscus

GINGIVA STRUCTURE

- MiYO Gingiva Structure: structure pastes for layering.
- Outstanding high stability.
- Individual design of the surface structure with a brush.
- Natural refractive index of MiYO Structure is visible on monolithic crowns from a layer thickness of 0,1 mm.
- Low firing temperature preserves the surface design.
- No additional glaze firing needed.

Available as:

Structure Orchid

Structure Rouge

Structure Frost

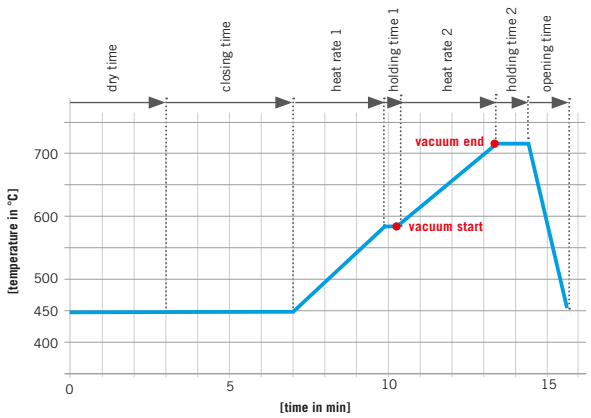
GLAZE PASTE

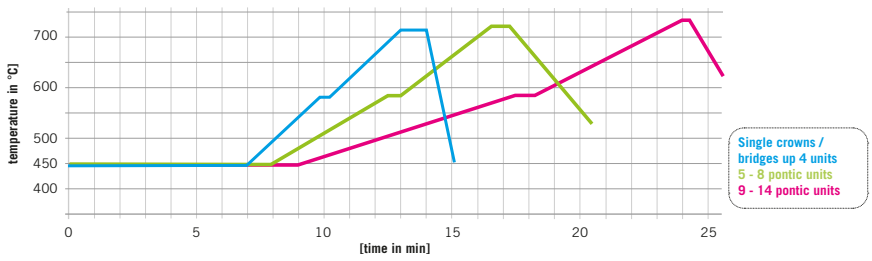
- MiYO Glaze Paste No Fluor: Due to its unique glass matrix, the desired result is achieved after the first firing.

LIQUIDS

- InSync one-for-all Glaze Liquid universally applicable for the InSync and MiYO system.

1.8 Notes to MiYO firing graphs





DRY TIME

- Only MiYO Color / Glaze Paste: 3 min
- With MiYO Structure: 4 min

CLOSING TIME

- Single crowns and bridges up to 4 units: 4 min
- Restorations with large volumes / bridges with more than 4 units: 5 - 6 min

HEAT RATE 1

- Single crowns and bridges up to 4 units: 45°/ min
- 5 - 8 units: 35°- 40°/ min
- 9 - 14 units: 20°- 25°/ min

HEAT RATE 2

- Bridges with more than 5 units: max 40°/ min

HOLDING TIME 2

- Single crowns and bridges up to 4 units: 1 min
- Reduce holding time 2 for large restorations, since the slow opening phase creates an „afterburning effect“.

OPENING TIME

- Opening phase according to the manufacturer‘s instructions for the framework material.

1.9 Firing charts MiYO I MiYO pink

! The following firing temperatures are standard values and may vary depending on the type of furnace and the size (volume) of the restoration. Please note the information on MiYO firing graphs in chapter 1.8!

COLOR I STRUCTURE I GLAZE

Firing paramter*	start temperature [°C]	dry time [min]	closing time [min]	heat rate [°C / min]	holding time 1 [s]	vacuum start [°C]	end temperature [°C]	vacuum end [°C]	holding time 2 [s]*	opening time [min]
ZrO_2	400 - 450	3	4	45	30 - 45	580	720	720	30 - 60	1
InSync ZR	400 - 450	3	4	45	30 - 45	580	720	720	30 - 60	1
InSync MC	400 - 450	3	4	45	30 - 45	580	720	720	30 - 60	1
Press to Zirconia	400 - 450	3	4	45	30 - 45	580	720	720	30 - 60	1
Lithium Disilicate	400 - 450	3	4	45	30 - 45	580	710	710	30 - 60	1

* Valid for all Color- Structure- and Glaze firings. I ** Depending on the desired shine, holding time should be 30 - 60 seconds.

HT STRUCTURE

Firing paramter*	start temperature [°C]	dry time [min]	closing time [min]	heat rate [°C / min]	holding time 1 [s]	vacuum start [°C]	end temperature [°C]	vacuum end [°C]	holding time 2 [s]*	opening time [min]
ZrO_2	400 - 450	3	4	45	30 - 45	600	775	775	60	1
InSync ZR	400 - 450	3	4	45	30 - 45	600	775	775	60	1

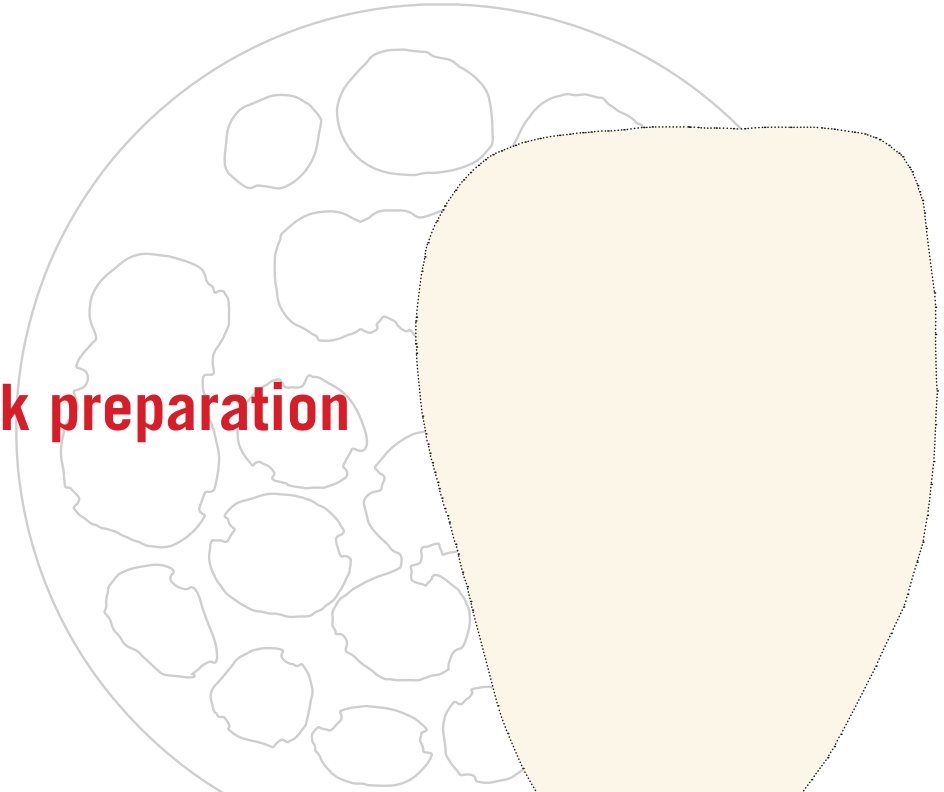
* Valid for HT structure firing. I ** Depending on the desired shine, holding time should be 30 - 60 seconds.

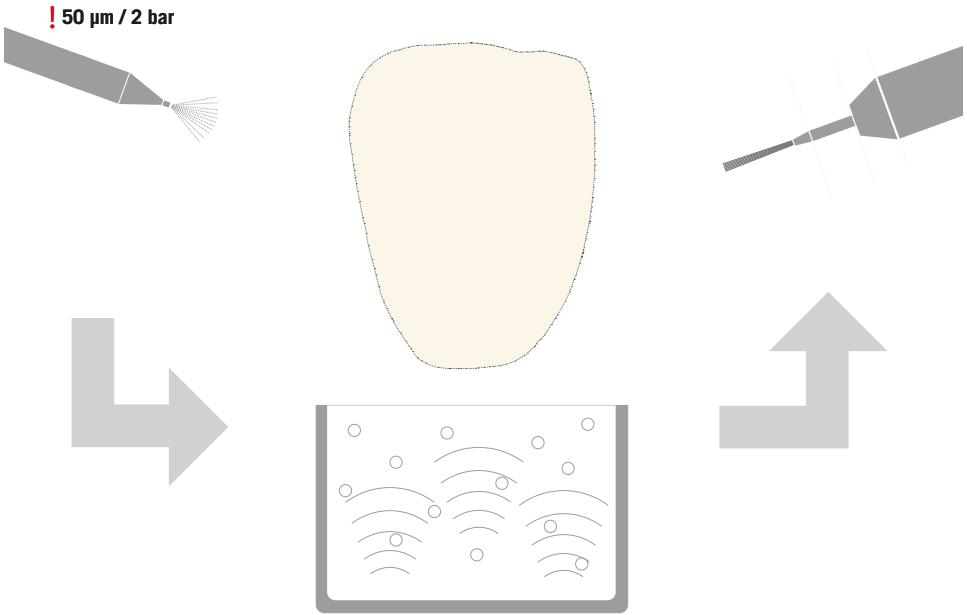
2 MiYO restoration

With MiYO you can achieve high aesthetic results more easily and quickly than ever before. The low firing temperature does not change the characteristics of the surface, so reliable and aesthetic results are achieved with only one or two fires.

MiYO restauration by James Choi

2.1 Framwork preparation





ZIRCONIA

- Prepare the zirconia frameworks after milling according to the manufacturer's instructions.
- Sandblast the sintered surface with Al_2O_3 or glass beads 50 µm and 2 bar pressure.
- Clean with distilled water in an ultrasonic bath.
- Clean carefully with a steam cleaner.

LITHIUM DISILICATE INSYNC ZR I MC PRESS TO ZIRCONIA

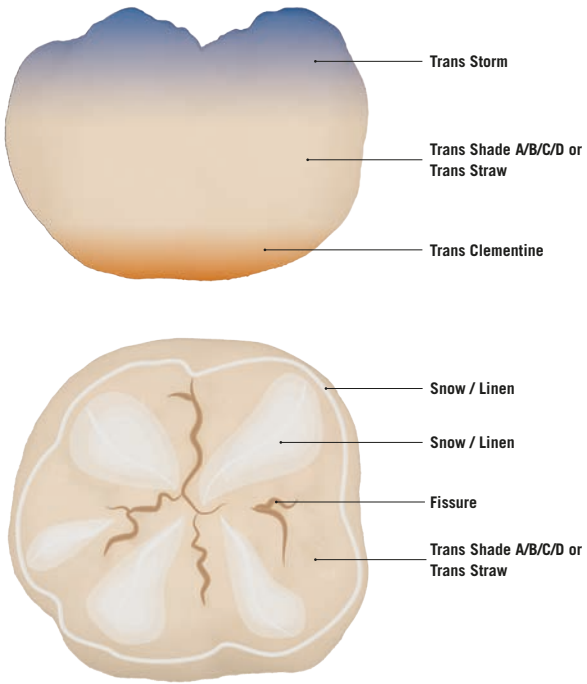
- Sandblast the surface with Al_2O_3 50 µm and 2 bar pressure.
- Clean with distilled water in an ultrasonic bath.
- Clean carefully with a steam cleaner.

2.2 Coloring

Paint with MiYO Color and then glaze or design the surface texture with MiYO structure, so esthetic results can be achieved in a very short time with little effort.

Colored MiYO crown by James Choi

2.2.1 MOLAR - *pure color*



PREPARATION

- Mix MiYO Color thoroughly with a metal free spatula.
- Add a thin layer of Glaze Liquid before you start coloring.

COLORING

- Colorize the entire labial area in three color zones: Trans Shade A/B/C/D or Trans Straw, set occlusal accents with Trans Storm and cervical accents with Trans Clementine.
- Colorize the entire occlusal surface in the desired shade Trans Shade A/B/C/D or Trans Straw.
- Add fissure to the fissure and cusp areas with snow or linen.

FIRING

- Fire with furnace-specific firing parameters.

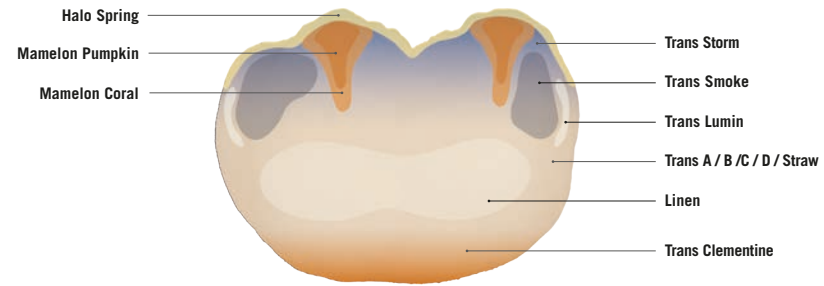
USED MATERIAL

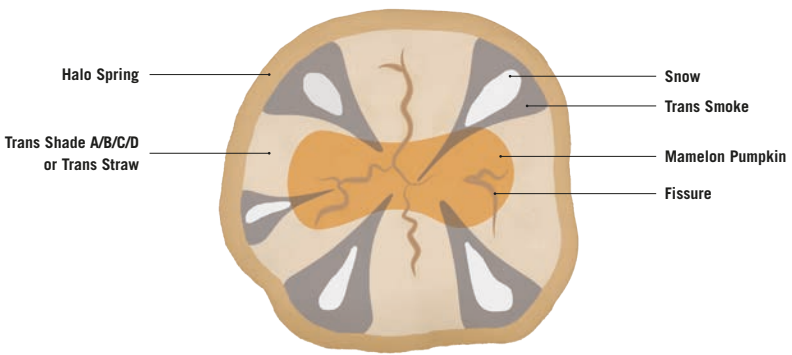
- Trans Shade A, B, C, D / Trans Straw
- Trans Storm
- Trans Clementine
- Fissure
- Snow or Linen
- InSync one-for-all Glaze Liquid

NEXT STEP

The restoration can now either be glazed (> chapter 2.4) or the surface texture can be designed with MiYO Structure (> chapter 2.3).

2.2.2 MOLAR - *creative color*





PREPARATION

- Mix MiYO Color thoroughly with a metal free spatula.
- Add a thin layer of Glaze Liquid before you start coloring.

COLORING

- Colorize the labial area as described under *pure color* in three zones and the occlusal surface.
- Characterize individually with mamelon, halo, effect material and value enhancer.

FIRING

- Fire with furnace-specific firing parameters.

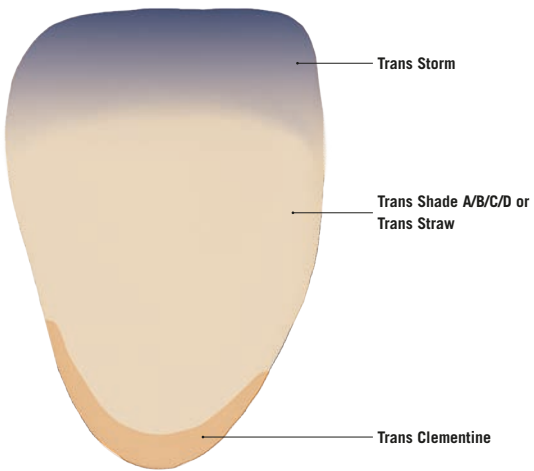
USED MATERIAL

- Trans Shade A, B, C, D / Trans Straw
- Trans Storm
- Trans Clementine
- Fissure
- Snow / Linen
- Halo Spring / Halo Autumn
- Mamelon Coral and Mamelon Pumpkin
- Trans Smoke
- Trans Lumin
- Linen
- InSync one-for-all Glaze Liquid

NEXT STEP

The restoration can now either be glazed (> chapter 2.4) or the surface texture can be designed with MiYO Structure (> chapter 2.3).

2.2.3 ANTERIOR - *pure color*



PREPARATION

- Mix MiYO Color thoroughly with a metal free spatula.
- Add a thin layer of Glaze Liquid before you start coloring.

COLORING

- Colorize the entire labial area in three color zones: Trans Shade A/B/C/D or Trans Straw, set occlusal accents with Trans Storm and cervical accents with Trans Clementine.

FIRING

- Fire with furnace-specific firing parameters.

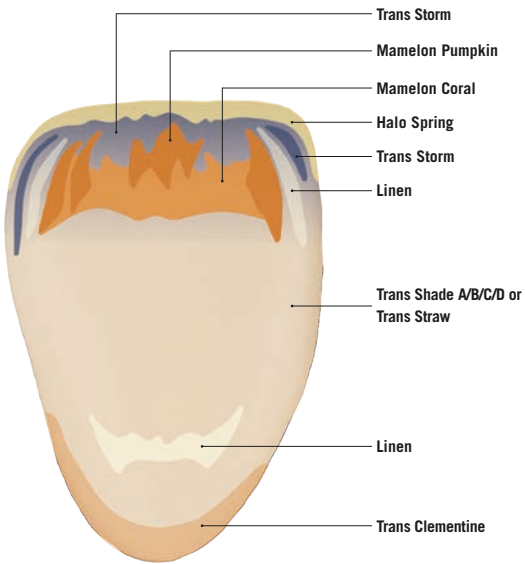
USED MATERIAL

- Trans Shade A, B, C, D / Trans Straw
- Trans Storm
- Trans Clementine
- InSync one-for-all Glaze Liquid

NEXT STEP

The restoration can now either be glazed (> chapter 2.4) or the surface texture can be designed with MiYO Structure (> chapter 2.3).

2.2.4 ANTERIOR - *creative color*



PREPARATION

- Mix MiYO Color thoroughly with a metal free spatula.
- Add a thin layer of Glaze Liquid before you start coloring.

COLORING

- Colorize the labial area as described under *pure color.*
- Characterize individually with mamelon, halo, effect material and value enhancer.

FIRING

- Fire with furnace-specific firing parameters.

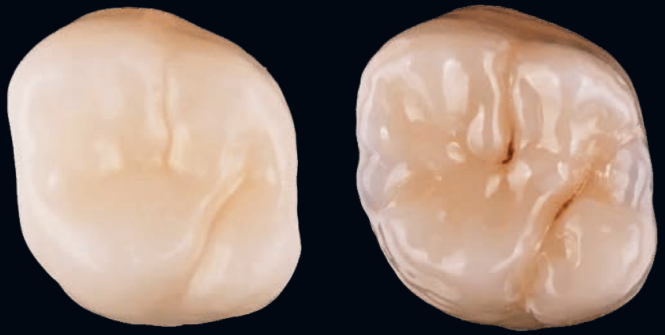
USED MATERIAL

- Trans Shade A, B, C, D or Trans Straw
- Trans Storm
- Trans Clementine
- Halo Spring / Halo Autumn
- Mamelon Coral and Mamelon Pumpkin
- Trans Storm
- Linen
- InSync one-for-all Glaze Liquid

NEXT STEP

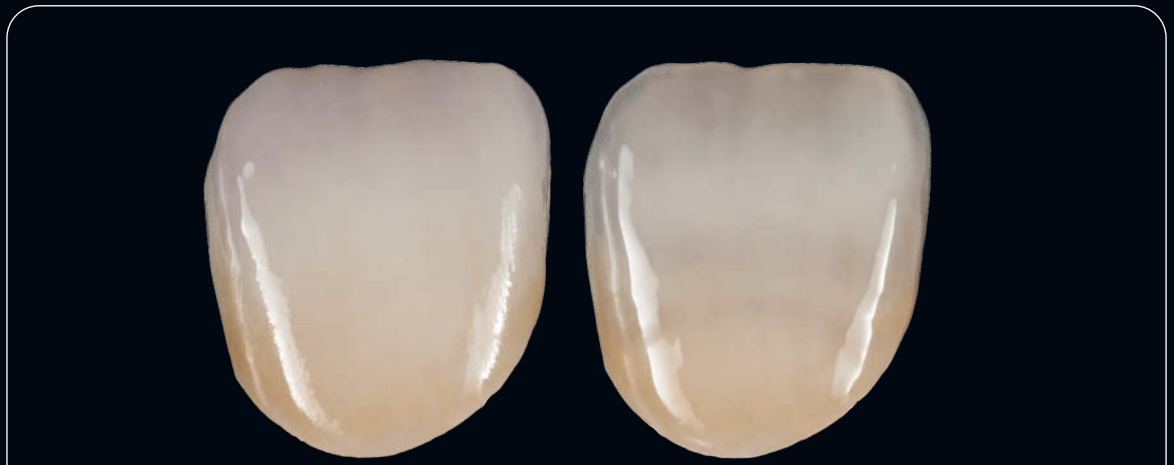
The restoration can now either be glazed (> chapter 2.4) or the surface texture can be designed with MiYO Structure (> chapter 2.3).

Different shape, color and effect starting from a base



Structuring the surface

From A3 to A1 with MiYO Color Lumin



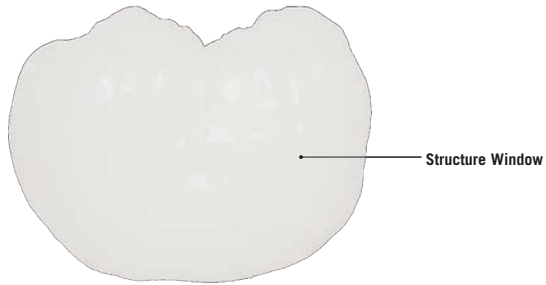
From high to low value with MiYO Color Storm and Smoke

2.3 Structuring

Individual surface structure added with the brush. Create depth, vitality in unprecedented thicknesses of 0.1 mm - 0.2 mm.

MiYO Structure before firing by James Choi

2.3.1 MOLAR - *pure structure*



PREPARATION

- Colorize and fire the crown as described in chapter 2.2
- Mix MiYO Structure thoroughly with a metal free spatula.

PROCESSING

- Apply Structure Window on the entire surface. Structure Window does not change the color scheme.
- Customize individual surface structure with a brush.

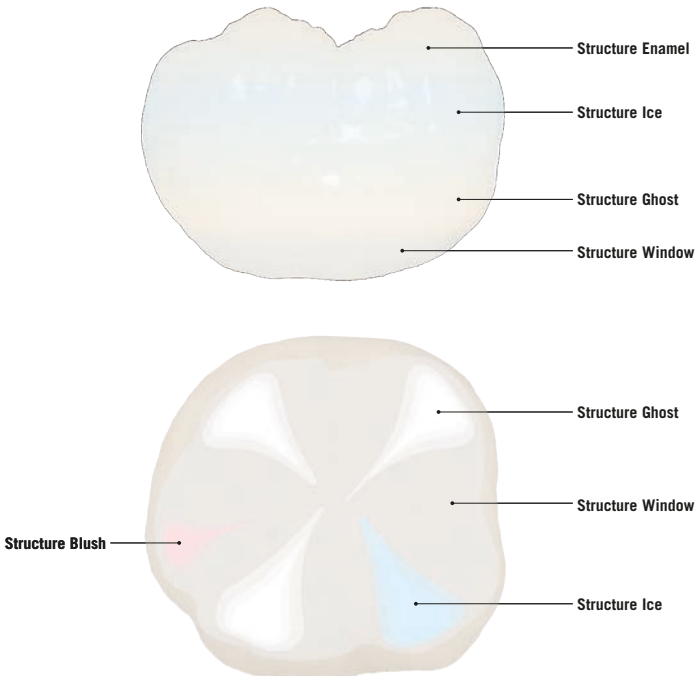
FIRING

- Fire with furnace-specific firing parameters.

USED MATERIAL

- Structure Window

2.3.2 MOLAR - *creative structure*



PREPARATION

- Colorize and fire the crown as described in chapter 2.2
- Mix MiYO Structure thoroughly with a metal free spatula.

PROCESSING

- Apply MiYO Structure individually according to your coloring.
- Integrate nature-identical surface structure with a brush.

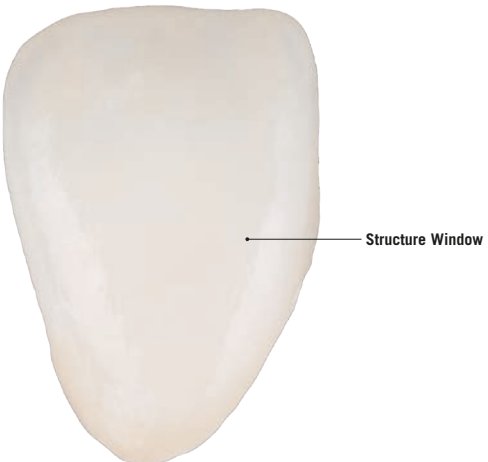
FIRING

- Fire with furnace-specific firing parameters.

USED MATERIAL

- Structure Window
- Structure Ghost
- Structure Enamel
- Structure Ice
- Structure Blush

2.3.3 ANTERIOR - *pure structure*



PREPARATION

- Colorize and fire the crown as described in chapter 2.2
- Mix MiYO Structure thoroughly with a metal free spatula.

PROCESSING

- Apply Structure Window on the entire surface. Structure Window does not change the color scheme.
- Customize individual surface structure with a brush to reproduce natural tooth surface structure.

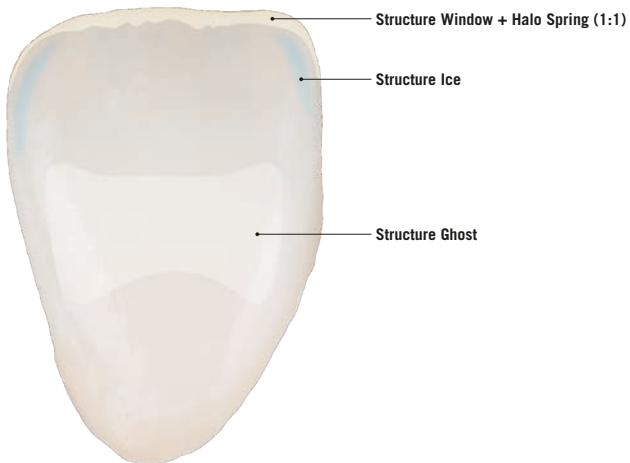
FIRING

- Fire with furnace-specific firing parameters.

USED MATERIAL

- Structure Window

2.3.4 ANTERIOR - *creative structure*



PREPARATION

- Colorize and fire the crown as described in chapter 2.2
- Mix MiYO Structure thoroughly with a metal free spatula.

PROCESSING

- Apply MiYO Structure individually according to your coloring.
- Customize individual surface structure with a brush to reproduce natural tooth surface structure.
- Mix Structure Window and Halo Spring in a ratio of 1: 1 to achieve orange - reddish incisal effects.
- Structure Ice for bluish or Structure Blush for reddish opalescent light effects.
- Structure Ghost to raise the value.

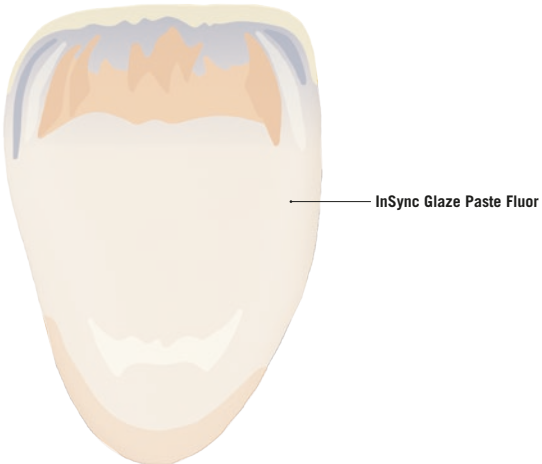
FIRING

- Fire with furnace-specific firing parameters.

USED MATERIAL

- Structure Window
- Structure Ice
- Structure Blush
- Structure Ghost
- Halo Spring

2.4 Glaze firing



Glaze paste can be applied to the entire restoration to achieve a uniform surface finish.

PREPARATION

- Stir InSync Glaze Paste with metal-free spatula.

PROCESSING

- Apply InSync Glaze Paste.

FIRING

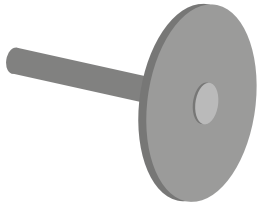
- Glaze firing with furnace-specific firing parameters.

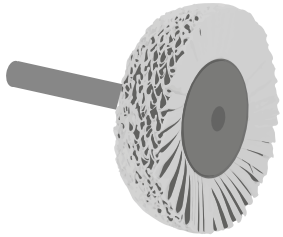
USED MATERIAL

- InSync Glaze Paste Fluor

2.5 Finishing

After the glaze firing, the gloss level of the crown can be adjusted with pumice powder at the polishing unit or by hand with the handpiece and diamond polishing paste.

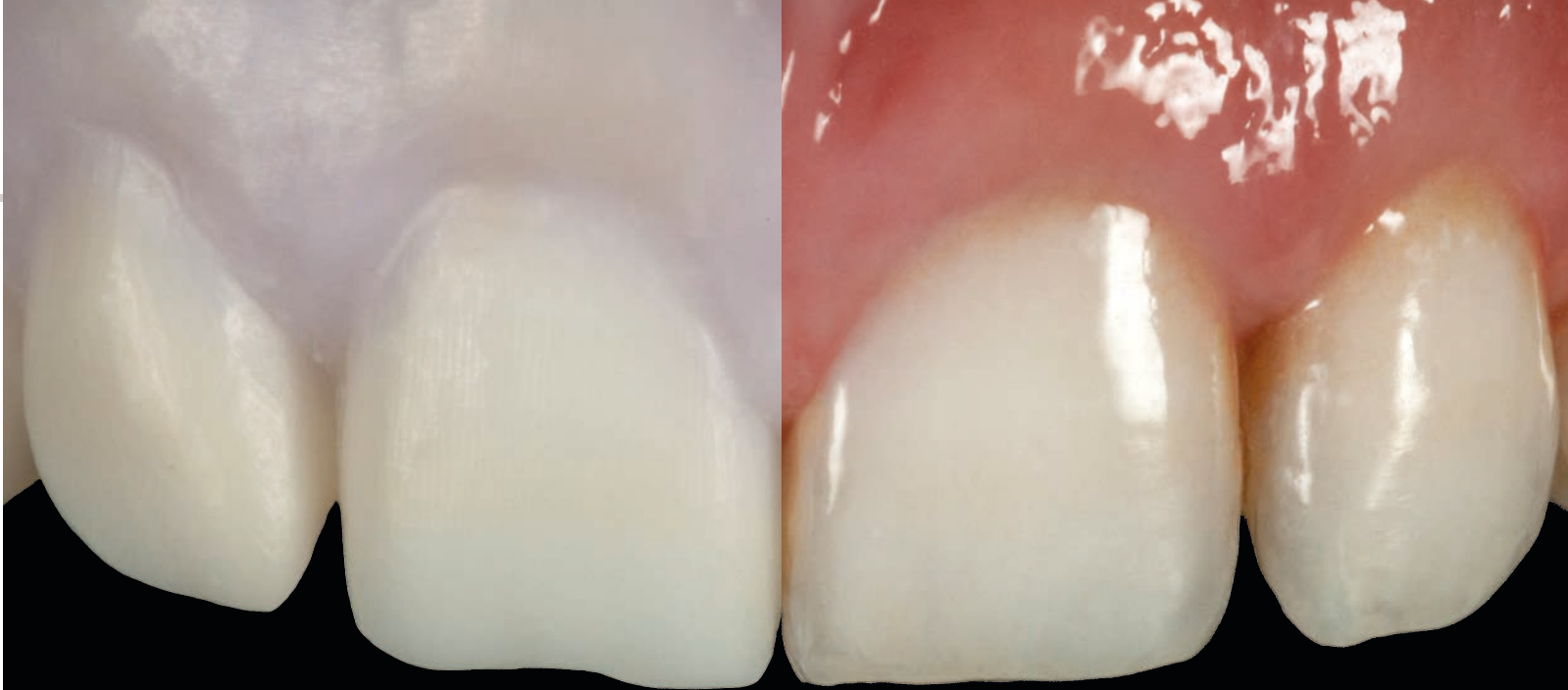




Finished MiYO work by James Choi

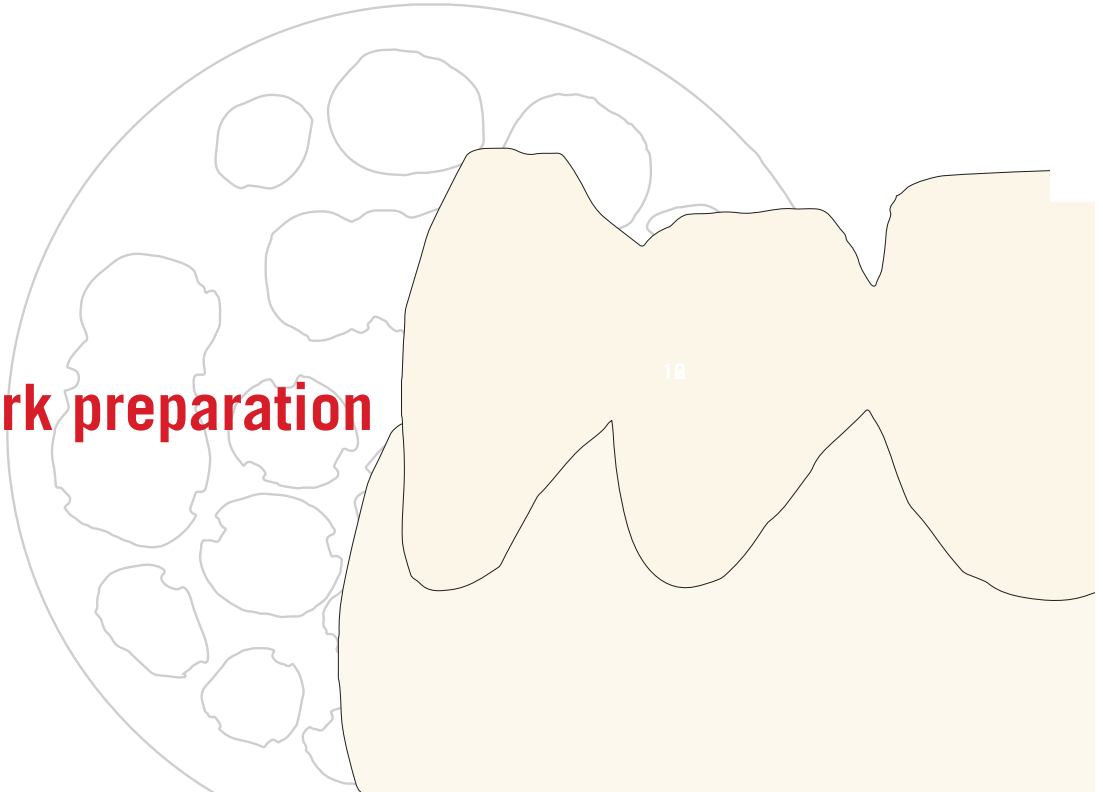
3 MiYO pink restoration

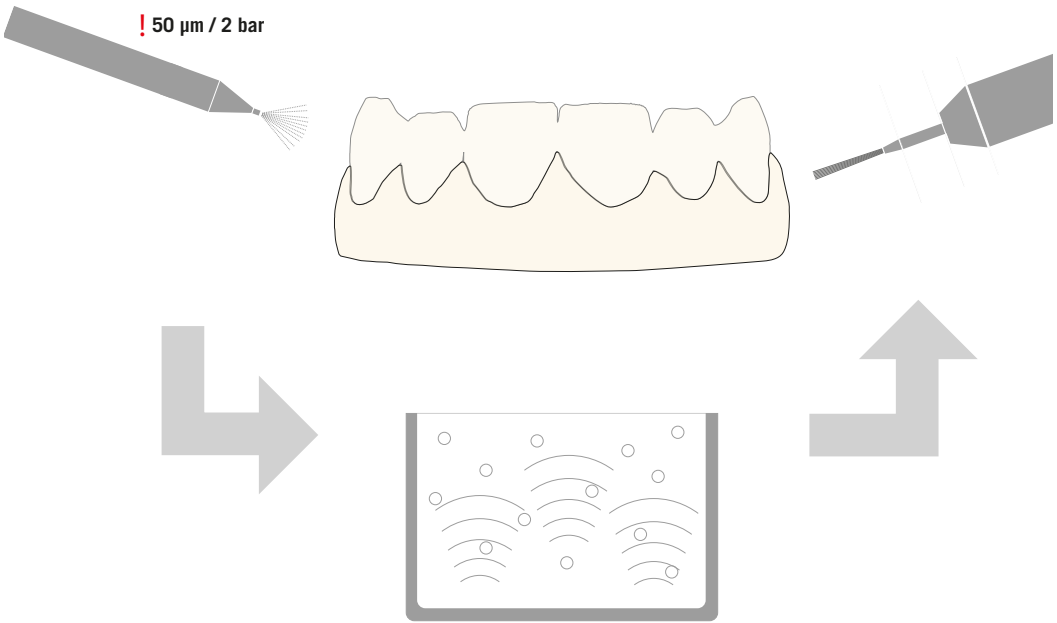
The MiYO pink Gingival System gives technicians the unique ability to create the depth, vitality and texture found in natural tissue, in unprecedented thicknesses of 0.1 mm - 0.2 mm.



MiYO and MiYO pink restoration by James Choi

3.1 Framework preparation





ZIRCONIA

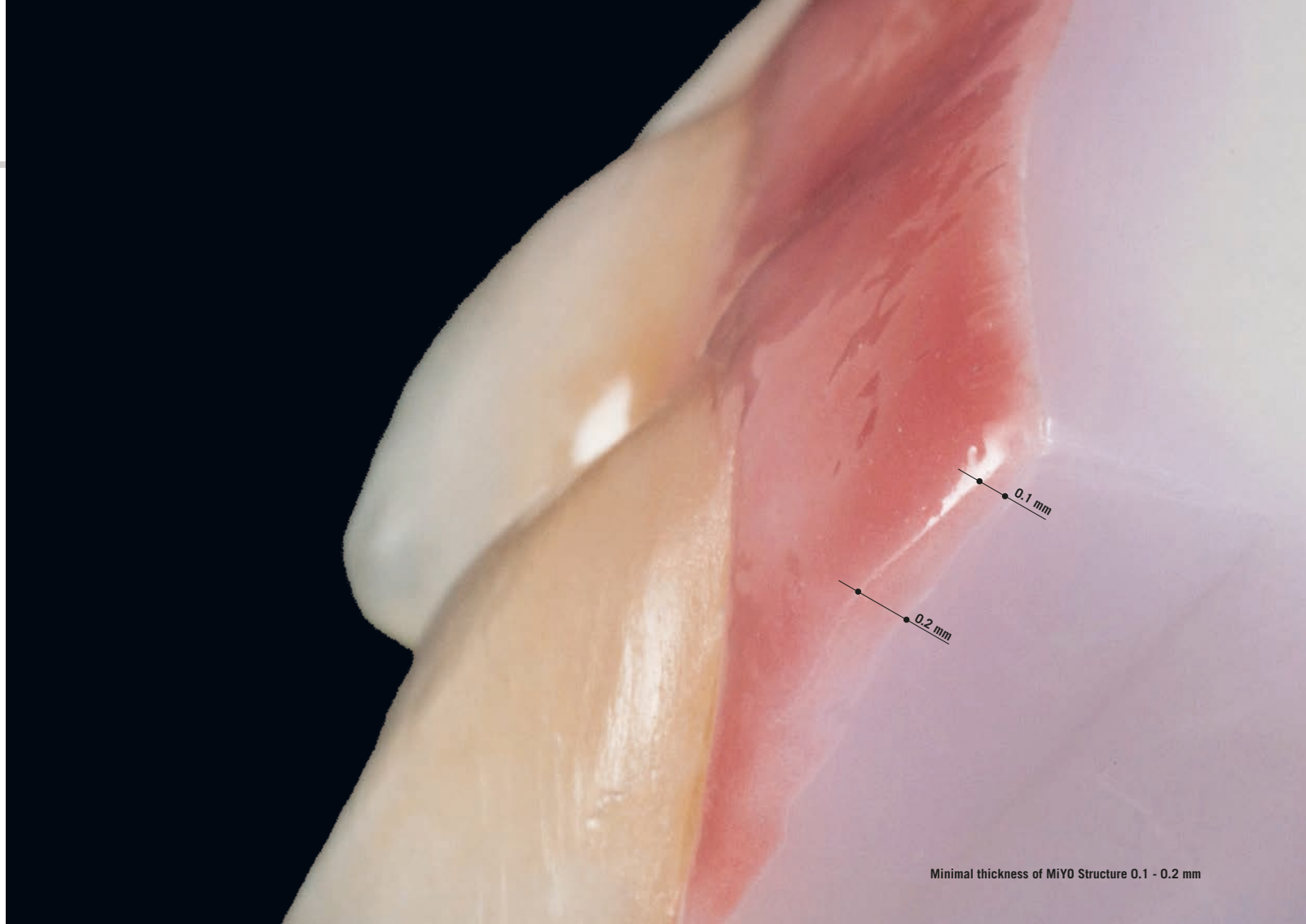
- Prepare the zirconia frameworks after milling according to the manufacturer's instructions.
- Sandblast the sintered surface with Al_2O_3 or glass beads 50 µm and 2 bar pressure.
- Clean with distilled water in an ultrasonic bath.
- Clean carefully with a steam cleaner.

LITHIUM DISILICATE INSYNC ZR

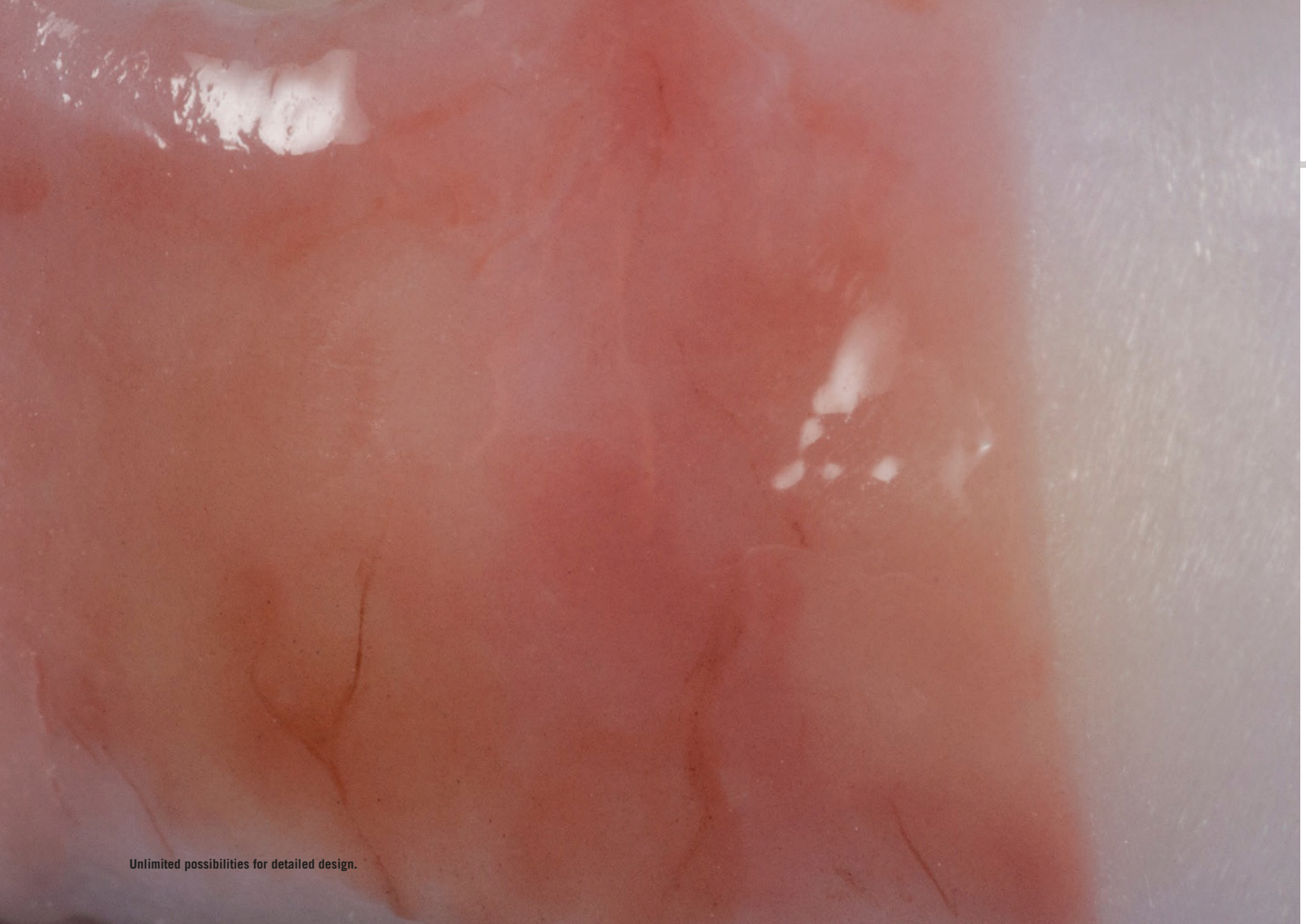
- Sandblast the surface with Al_2O_3 50 µm and 2 bar pressure.
- Clean with distilled water in an ultrasonic bath.
- Clean carefully with a steam cleaner.

3.2 Coloring

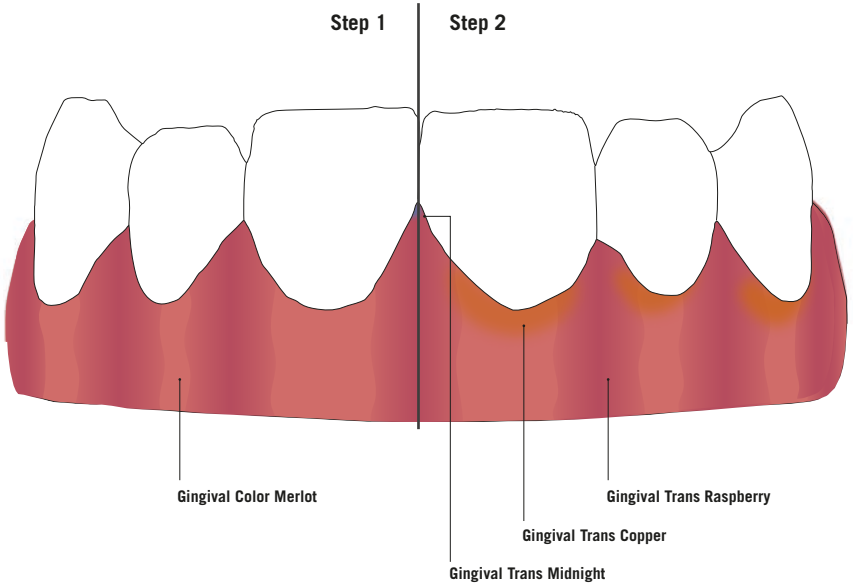
Paint with MiYO pink Color and then glaze or design the surface texture with MiYO pink Structure. So esthetic results can be achieved in a very short time with little effort.



Minimal thickness of MiYO Structure 0.1 - 0.2 mm



Unlimited possibilities for detailed design.



PREPARTATION

- Mix MiYO pink Color thoroughly with a metal free spatula.
- Add a thin layer of Glaze Liquid before you start coloring.

COLORING

- Step 1: Adjusting the base color with MiYO pink Gingival Color.
- Step 2: Design of papilla and alveolar areas as well as blood vessels with MiYO pink Gingival Translucent. To do this, apply Trans Raspberry, Copper or Midnight to the unfired MiYO pink Gingival Color (base shade).

FIRING

- Fire with furnace-specific firing parameters.

USED MATERIAL

- Gingival Color Merlot
- Gingival Trans Raspberry
- Gingival Trans Copper
- Gingival Trans Midnight
- InSync one-for-all Glaze Liquid

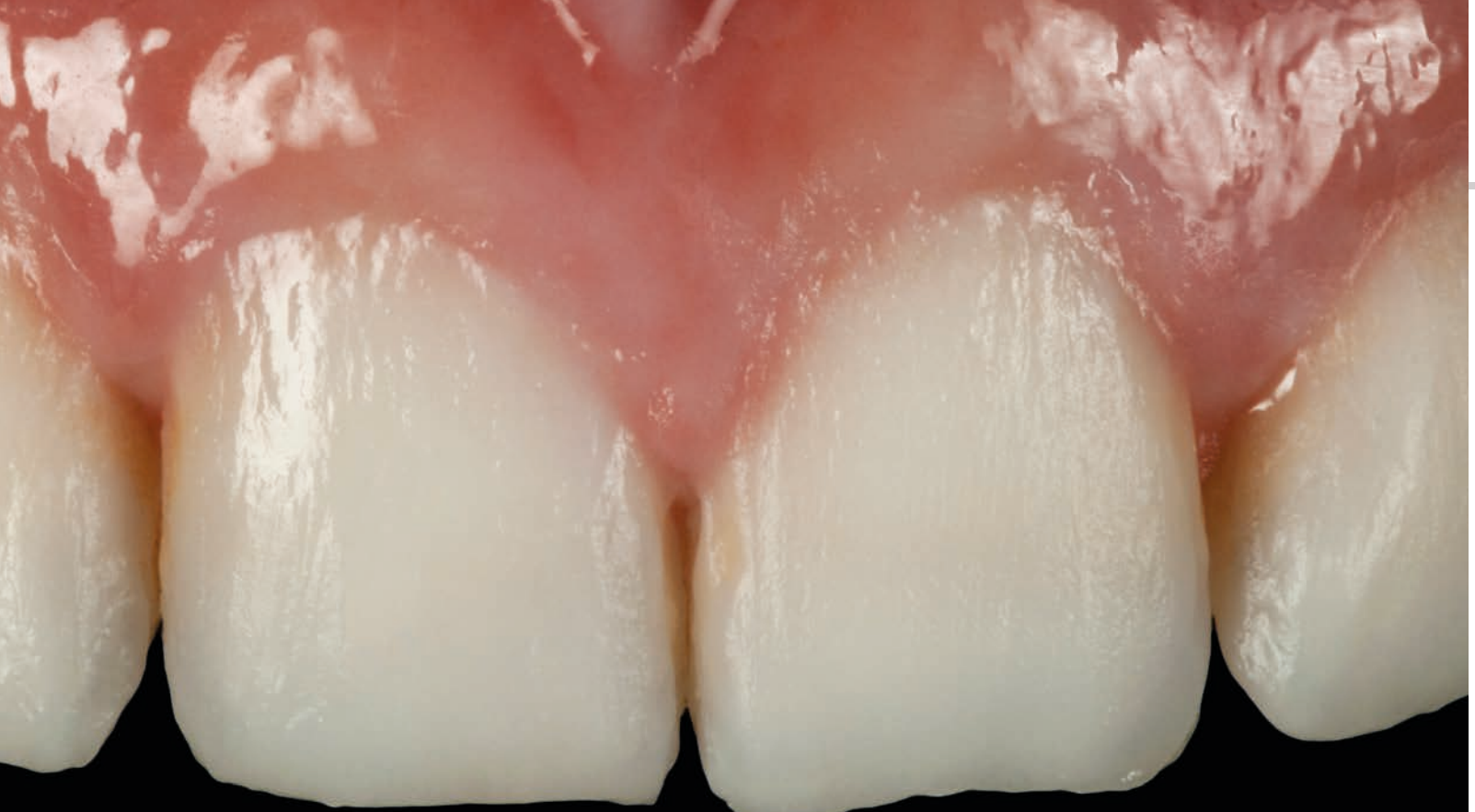
NEXT STEP

The restoration can now either be glazed (> chapter 3.4) or the surface texture can be designed with MiYO pink Structure (> chapter 3.3).

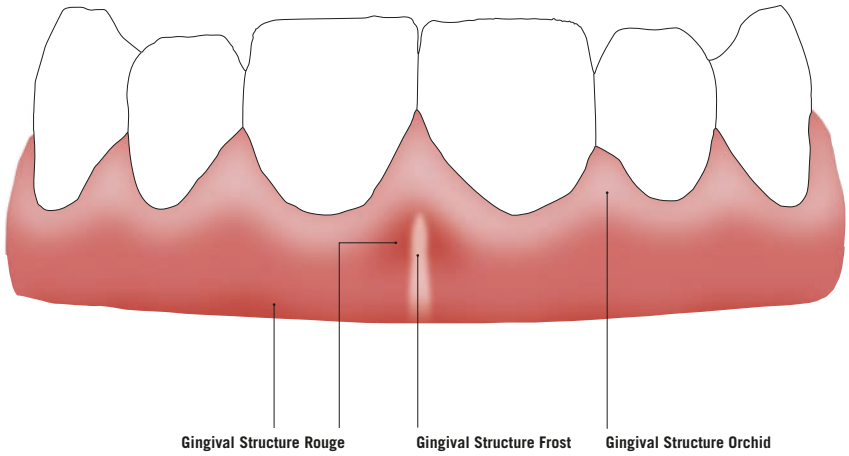
3.3 Structuring

Individual surface structure added with the brush. Create depth, vitality in unprecedented thicknesses of 0.1 mm - 0.2 mm.

Natural tissue design with MiYO pink Structure



MiYO and MiYO pink restoration by James Choi



PREPARATION

- Colorize and fire the tissue as described in chapter 3.2
- Mix MiYO pink Structure thoroughly with a metal free spatula.

PROCESSING

- Apply Gingival Structure Orchid, Rouge or Frost.
- Customize individual surface structure with a brush.

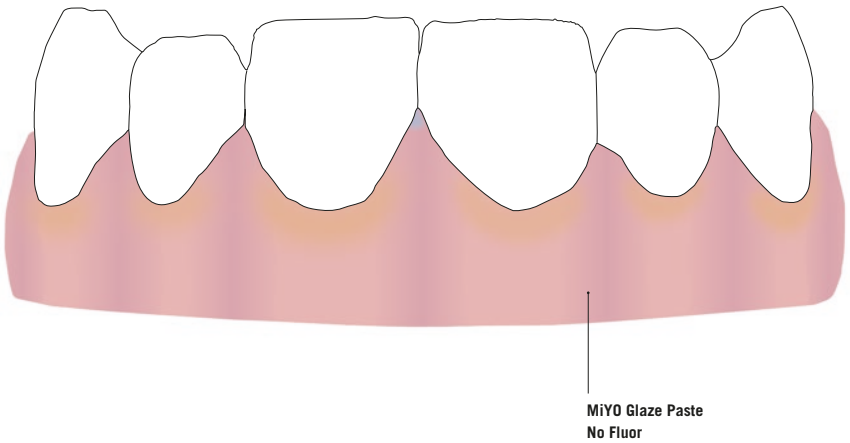
FIRING

- Fire with furnace-specific firing parameters.

USED MATERIAL

- Gingival Structure Orchid
- Gingival Structure Frost
- Gingival Structure Rouge

3.4 Glaze firing



Glaze paste can be applied to the entire restoration to achieve a uniform surface finish.

PREPARATION

- Stir MiYO Glaze Paste with metal-free spatula.

PROCESSING

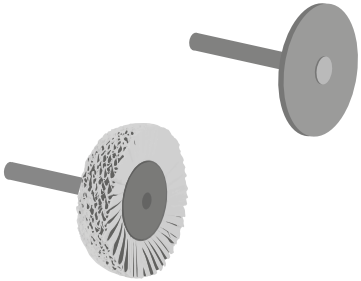
- Apply MiYO Glaze Paste.

FIRING

- Glaze firing with furnace-specific firing parameters.

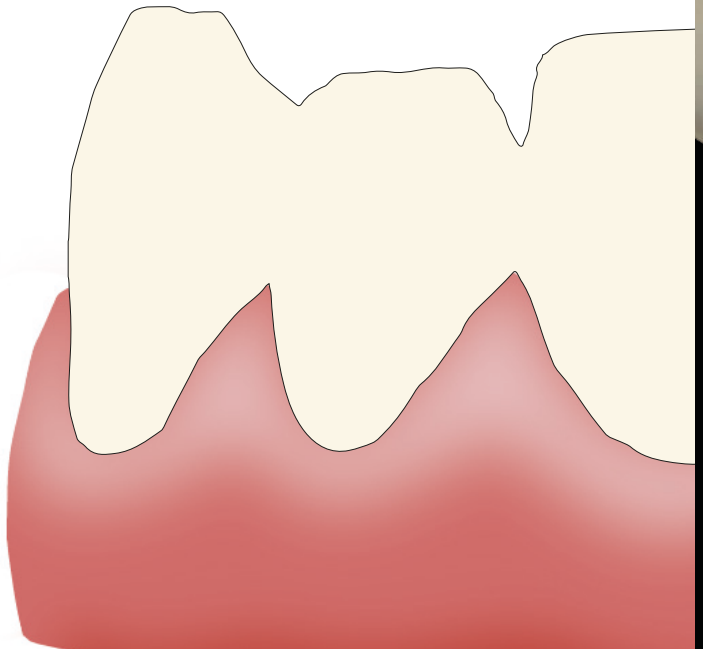
USED MATERIAL

- MiYO Glaze Paste No Fluor



3.5 Finishing

After the glaze firing, the gloss level of the crown can be adjusted with pumice powder at the polishing unit or by hand with the handpiece and diamond polishing paste.



Finished MiYO and MiYO pink restoration by James Choi

4 Notes

4.1 Warning notes concerning processing procedure



- For dental use only.
- Application may only be carried out by trained specialists.
- During the course of preparing ceramic restorations (sanding, polishing), dust particles and splitter fragments may occur. Wear eye protection and avoid inhaling dust from sanding processes. We recommend the use of an extraction system and/or the wearing of a protective mask and safety goggles.
- Material contact with skin, mucous membranes and eyes should be avoided. Care must be taken when working with high temperatures, e.g. during firing. Danger of burns; wear gloves.
- Due to the differing ceramic furnace construction types on the market, firing conditions can vary. This must be taken into account and examined by the customer on their own responsibility. The firing temperatures stated herein are only guideline values.
- Careful attention should be paid to the cleanliness of the brushes and spatula. Any contamination from the outside can have a negative influence to the firing result. Danger of contamination!
- Do not pour surplus liquid out of the containers. Mix MiYO Color, MiYO Structure and Glaze Paste thoroughly with a metal-free spatula before each use. The pastes must not come into contact with water.
- For frameworks please follow the recommendations of the respective material manufacturer. The recommendations and notes in the corresponding instructions for use, must be observed.

- KEEP CLOSED

4.2 Neglient product use

The combination with materials outside of the described product system or with materials from other manufacturers is not allowed. MiYO products will not be held responsible for any clinical problem case.

4.2 Disposal

Small quantities can be deposited in household waste. Remaining stocks or removed restorations must be disposed in accordance with national legal requirements.

4.3 Storage and keeping conditions

No special storage and keeping conditions necessary.

4.4 Disclaimer

We accept no liability for damage resulting from improper processing or other use. This material is exclusively intended for dental use. Before using it, the user undertakes to check the suitability of the product for its intended use. Any liability on our part is excluded if the product is processed in incompatible or non-permissible combination with materials of other manufacturers. Furthermore, our liability is limited to the correctness of this information, irrespective of the legal grounds and, as far as legally permissible, in any case to the delivered material value before VAT.

4.5 Copyright

5 Manufacturer and Sales

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