miyo®

esthetic system

workbook

JENSEN DENTAL

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Introduction

INTENDED USE:

Type 1, class 1b ceramic for the coloring, enhancing and glazing of the following restoration types: Zirconia and Lithium Disilicate

- Monolithic
- Minimally layered
- Traditionally layered
- Pressed-to

Jensen's MiYO® Esthetic System is revolutionizing how restorations are made. Thanks to an entirely new approach and carefully matched components, the challenges associated with creating monolithic restorations that mimic natural teeth have been eliminated.

The constantly expanding system integrates quickly and easily into any laboratory workflow, and offers a simple, predictable and cost effective approach to getting perfect shades and extremely natural esthetics, in minimal thickness (0.1mm-0.2mm), every time.

MiYO® makes beautiful easy.

MiYO Esthetic - for teeth

The MiYO Liquid Ceramic system for teeth is comprised of 2 components, MiYO Color and MiYO Structure that reflect traditional layering materials.

MiYO Color

Translucent, semi-translucent and opaque self-glazing Colors. The unique properties of MiYO Color allow the user to float wet Color on top of wet Color without mixing, so that every detail imaginable can be achieved in one application.

MiYO Structure

Translucent self-glazing building pastes. The unique properties of MiYO Structure allow the user to build shapes and create surface texture with a brush in ultra-thin layers (0.1mm – 0.2mm).

MiYO Firing Parameters - for Teeth

! The following firing temperatures are standard values and may vary depending on the type of furnace. The larger the mass of zirconia or lithium disilicate, the slower the rate of temperature increase is required to allow the large mass to heat up the same internally and externally. Firing parameters represent standard values and may need to be adjusted. Final results should be the determining factor in furnace adjustments. If higher sheen is desired, increase high temperature.

	ZIRCONIA SMALL CASES SINGLE UNITS TO 3 UNIT BRIDGES			ZIRCONIA MEDIUM CASES 4-8+ UNIT BRIDGES			ZIRCONIA LARGE CASES FULL ARCH/ALL-ON-4		
	MiYO Color & InSync Glaze	MiYO Structure	MiYO Structure High Fusing	MiYO Color & InSync Glaze	MiYO Structure	MiYO Structure High Fusing	MiYO Color & InSync Glaze	MiYO Structure	MiYO Structure High Fusing
Dry Time (Min)	5	5	5	6-8	6-8	6-8	8-10	8-10	8-10
Entry Time (Min)	6	6	6	6-8	6-8	6-8	8-10	8-10	8-10
Low Temp (°C)	450°C	450°C	450°C	450°C	450°C	450°C	430°C	430°C	430°C
Vacuum Start (°C)	510°C	510°C	510°C	510°C	510°C	510°C	510°C	510°C	510°C
Heat Rate (°C/Min)	45°C	45°C	45°C	40°C	40°C	40°C	35°C	35°C	35°C
High Temp (°C)	745°C	710°C	760°C	745°C	705°C	755°C	735°C	700°C	750°C
Vacuum Stop (°C)	745°C	710°C	760°C	745°C	705°C	755°C	735°C	700°C	750°C
Hold Time in Air (Min)	1	40 Sec	1	1	40 Sec	1	1	20 Sec	1
Cool Time (Min)	~5	~5	~5	~12	~12	~12	~20	~20	~20

⚠ Inhalation of ceramic dust can be hazardous to your health

CTE (25-500°C) [$*10^{-6}$ K^{-1}] ± 1.0: MiYO Colors & Structure 7.4 (2x)
CTE (25-500°C) [$*10^{-6}$ K^{-1}] ± 0.5: MiYO and InSync Glaze 7.3 (1x)
CTE (25-500°C) [$*10^{-6}$ K^{-1}] ± 0.5: MiYO Structure High Fusing 8.2 (1x)

MiYO Firing Parameters - for Teeth

IMPORTANT: Table below should be close, but temperature and time adjustments for your furnace and state of calibration will dictate testing to ensure proper results. Different furnace types and brands may fire higher or lower, requiring compensation. The values in the firing charts shown here were obtained using vertical opening furnaces.

LITHIUM DISILICATE

SINGLE UNITS TO 3 UNIT BRIDGES

	MiYO Color & InSync Glaze	MiYO Structure	MiYO Structure High Fusing
Dry Time (Min)	5	5	5
Entry Time (Min)	5	5	5
Low Temp (°C)	550°C	550°C	550°C
Vacuum Start (°C)	550°C	550°C	550°C
Heat Rate (°C/Min)	45°C	45°C	50°C
High Temp (°C)	770°C	710°C	765°C
Vacuum Stop (°C)	770°C	710°C	765°C
Hold Time in Air (Min)	2	40 Sec	1
Cool Time (Min)	~5	~5	~5

***NOTE*:** Clamshell type furnaces typically need to have 10°C added to temps to fire the same as the vertical furnace temps shown in the chart. Early model clamshell-type ovens are not able to maintain a 'standby' temperature when open, requiring different dry/closing parameters and procedures. It is up to the technician to verify temps, no matter which furnace type is used.

MiYO Teeth System Components

Translucent

- Shade A
- Shade B
- Shade C
- Shade D
- Lumin
- Lumin Plus
- Sage
- Sunflower
- Night
- Straw
- Lotus
- Clementine
- Smoke
- Storm
- Cobalt
- Slate
- Garnet
- Moss

Medium Opacity

- Halo Spring
- Halo Autumn
- Linen

High Opacity

- Mamelon Wheat
- Mamelon Coral
- Mamelon Pumpkin
- Snow
- Fissure

Structure

Window Enamel Ghost Ice Blush

Structure High Fusing

Window Enamel

Glaze

restoration & photo by James Choi

Getting Started

BEFORE USE

- Pre-Color Preparation: Surface should be clean and free of contaminants.
- IMPORTANT: Do not pour out liquid that may accumulate at top of jar.
- MIX ALL MATERIALS THOROUGHLY BEFORE USE EVERY DAY to maintain consistency and proper handling properties throughout the life of the jar.
- Do not bring InSync Glaze or MiYO Color into contact with water! Contact with water will change the refractive index of liquid & will alter the appearance of colors while wet.
- Always use a clean brush
- STRUCTURE MATERIAL ONLY: Use water to clean off brush prior to and during application.

MIXING

- Keep your MiYO Colors mixed
  - Dispense only what you need daily (for best handling characteristics)
  - Mix your material for approximately 4-6 seconds (minimum) prior to dispensing
    - Ensures even color distribution
    - Ensures proper viscosity
    - Optimizes handling
  - Only use InSync Glaze Liquid with MiYO Color
    - Use sparingly (DO NOT get your Color too thin!)
    - Ensures proper refractive index is maintained

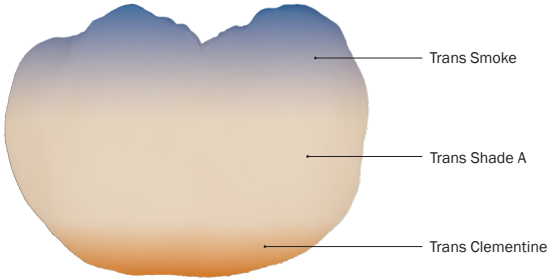
Getting Started

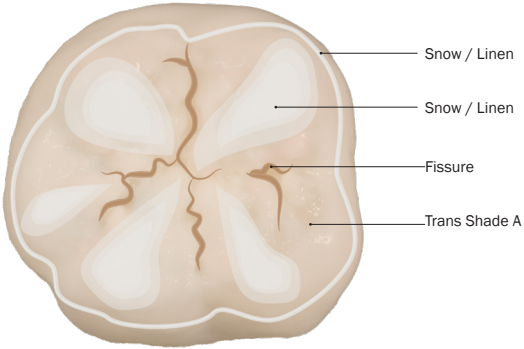
HANDLING

- Differences between MiYO Color and Structure
  - MiYO Color needs to be the correct thickness/viscosity to apply easily
    - Stir prior to dispensing to get correct viscosity and homogenize color particle suspension
    - They can only be mixed with InSync glaze liquid, NOT water!

  - MiYO Structure has a different consistency than the colors
    - Structure should NOT be stirred, but 'patted' (shear thinning) to get a homogenous moisture dispersion
    - Structure, if it becomes too dry, needs to have InSync glaze liquid applied and let to soak in. Then shear thinning can be applied to ensure dispersion.
    - Small amounts of water in your brush can be used to manipulate/smooth the Structure on your restoration

MiYO Color - Posterior: BASIC Example





PREPARATION

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

COLOR APPLICATION

- Color the entire labial area in three color zones: Trans Shade A, set occlusal accents with Trans Smoke cervical accents with Trans Clementine.
- Use Shade A and Smoke to enhance specific areas as desired
- Add Fissure (for pits and fissures) and Snow or Linen for highlighting cusp tips, marginal ridges and triangular ridges

FIRING

- Fire with oven-specific firing parameters.

MATERIAL USED

- Trans Shade A
- Trans Smoke
- Trans Clementine
- Fissure
- Snow or Linen
- InSync Glaze Paste

NOTE: MiYO Color material is shown as an example. Any MiYO Color material you feel is appropriate may be used based on your case needs.

Applying MiYO Color to a Basic Posterior Restoration

restoration & photo by James Choi

MiYO Structure - Posterior: BASIC Example

PREPARATION

- Color and fire the crown

STRUCTURE APPLICATION

- Apply Structure Enamel to add contacts during glaze cycle. Structure Enamel does not change the color scheme.
- Customize individual surface structure with a brush.

FIRING

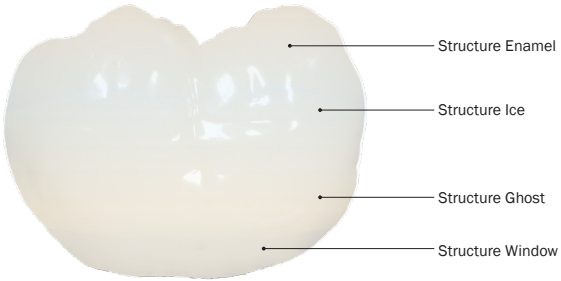
- Fire with oven-specific firing parameters.

MATERIAL USED

- Structure Enamel

NOTE: MiYO Structure material is shown as an example. Any MiYO Structure material you feel is appropriate may be used based on your case needs.

MiYO Structure - Posterior: ADVANCED Example



PREPARATION

- Color and fire the crown as described previously.

STRUCTURE APPLICATION

- Apply MiYO Structure individually according to your coloring needs
- Integrate natural looking surface structure with a brush.

FIRING

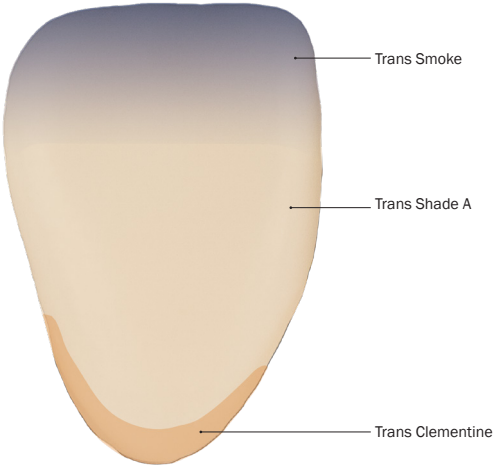
- Fire with oven-specific firing parameters.

MATERIAL USED

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

NOTE: MiYO Structure material is shown as an example. Any MiYO Structure material you feel is appropriate may be used based on your case needs.

MiYO Color - Anterior: BASIC Example



PREPARATION

- Mix MiYO Color well with a metal-free spatula.
- Before coloring, apply a thin layer of InSync Glaze Paste

COLOR APPLICATION

- Color the facial surface as shown in the 3 zones as well as the incisal edge.

FIRING

- Fire with oven-specific firing parameters.

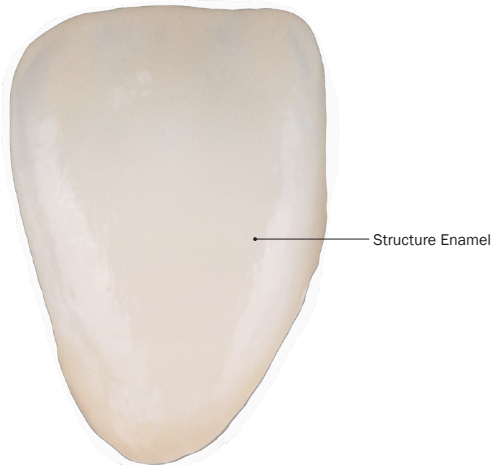
MATERIAL USED

- Trans Shade A
- Trans Smoke
- Trans Clementine
- InSync Glaze Paste

NOTE: MiYO Color material is shown as an example. Any MiYO Color material you feel is appropriate may be used based on your case needs.

Basic Anterior Restoration with MiYO Color
restoration & photo by James Choi

MiYO Structure - Anterior: BASIC Example



PREPARATION

- Color and fire the crown

STRUCTURE APPLICATION

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

FIRING

- Fire with oven-specific firing parameters.

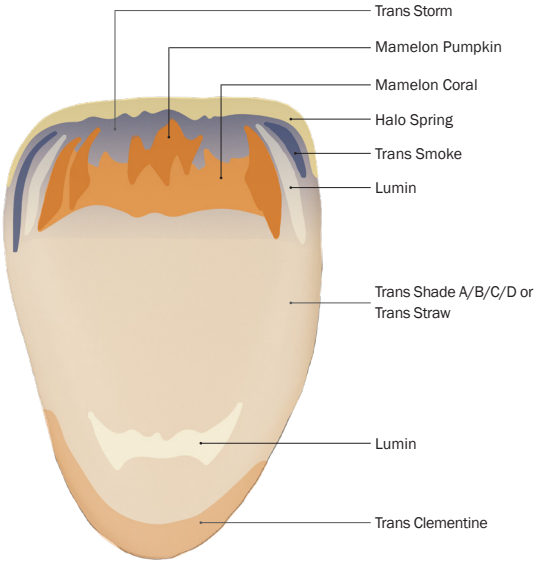
MATERIAL USED

- Structure Enamel

NOTE: MiYO Structure material is shown as an example. Any MiYO Structure material you feel is appropriate may be used based on your case needs.

Picking Up MiYO Structure Material
photo by James Choi

MiYO Color - Anterior: ADVANCED Example



PREPARATION

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

COLOR APPLICATION

- Color the facial surface as shown in the 3 zones as well as the incisal edge.
- Individually characterize with additional MiYO Color materials for enhanced effects

FIRING

- Fire with oven-specific firing parameters.

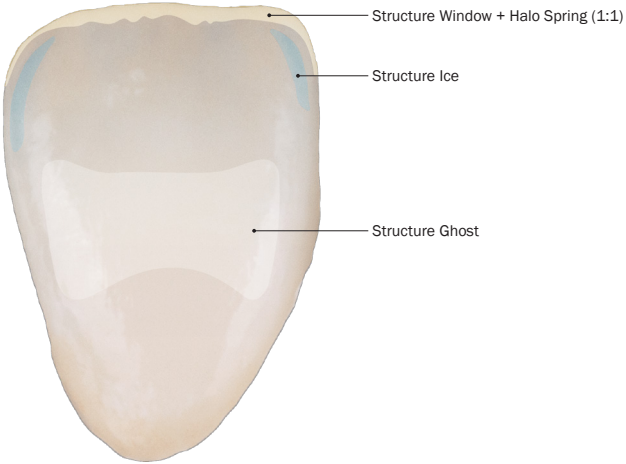
MATERIAL USED

- Trans Shade A, B, C, D / Trans Straw
- Trans Smoke
- Trans Clementine
- Halo Spring or Halo Autumn
- Mamelon Coral
- Mamelon Pumpkin
- Trans Storm
- Lumin

NOTE: MiYO Color material is shown as an example. Any MiYO Color material you feel is appropriate may be used based on your case needs.

Advanced Anterior Restoration with MiYO Color
restoration & photo by James Choi

MiYO Structure - Anterior: ADVANCED Example



PREPARATION

- Color and fire the crown as described previously.

STRUCTURE APPLICATION

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

FIRING

- Fire with oven-specific firing parameters.

MATERIAL USED

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

NOTE: MiYO Structure material is shown as an example. Any MiYO Structure material you feel is appropriate may be used based on your case needs.

Advanced Anterior Restoration with MiYO Structure
restoration & photo by James Choi

MiYO Pink - for tissue

The MiYO Pink Liquid Ceramic system for tissue is comprised of 2 components, MiYO Color and MiYO Structure that reflect traditional layering materials.

MiYO Color

Translucent, semi-translucent and opaque self-glazing Colors. The unique properties of MiYO Color allow the user to float wet Color on top of wet Color without mixing, so that every detail imaginable can be achieved in one application.

MiYO Structure

Translucent self-glazing building pastes. The unique properties of MiYO Structure allow the user to build shapes and create surface texture with a brush in ultra-thin layers (0.1mm – 0.2mm).

MiYO Pink Firing Parameters - for Tissue

! The following firing temperatures are standard values and may vary depending on the type of furnace. The larger the mass of zirconia or lithium disilicate, the slower the rate of temperature increase is required to allow the large mass to heat up the same internally and externally. Firing parameters represent standard values and may need to be adjusted. Final results should be the determining factor in furnace adjustments. If higher sheen is desired, increase high temperature.

	ZIRCONIA SMALL CASES SINGLE UNITS TO 3 UNIT BRIDGES		ZIRCONIA MEDIUM CASES 4-8+ UNIT BRIDGES		ZIRCONIA LARGE CASES FULL ARCH/ALL-ON-4		LITHIUM DISILICATE SINGLE UNITS TO 3 UNIT BRIDGES	
	MiYO Pink Color & MiYO/ InSync Glaze	MiYO Pink Structure	MiYO Pink Color & MiYO/ InSync Glaze	MiYO Pink Structure	MiYO Pink Color & MiYO/ InSync Glaze	MiYO Pink Structure	MiYO Pink Color & MiYO/ InSync Glaze	MiYO Pink Structure
Dry Time (Min)	5	5	6-8	6-8	8-10	8-10	5	5
Entry Time (Min)	6	6	6-8	6-8	8-10	8-10	5	5
Low Temp (°C)	450°C	450°C	450°C	450°C	430°C	430°C	550°C	550°C
Vacuum Start (°C)	510°C	510°C	510°C	510°C	510°C	510°C	550°C	550°C
Heat Rate (°C/Min)	45°C	45°C	40°C	40°C	35°C	35°C	45°C	45°C
High Temp (°C)	745°C	710°C	745°C	705°C	735°C	700°C	770°C	710°C
Vacuum Stop (°C)	745°C	710°C	745°C	705°C	735°C	700°C	770°C	710°C
Hold Time in Air (Min)	1	40 Sec	1	40 Sec	1	20 Sec	2	40 Sec
Cool Time (Min)	~5	~5	~12	~12	~20	~20	~5	~5

⚠ Inhalation of ceramic dust can be hazardous to your health

IMPORTANT: Table above should be close, but temperature and time adjustments for your furnace and state of calibration will dictate testing to ensure proper results. Different furnace types and brands may fire higher or lower, requiring compensation. The values in the firing charts shown here were obtained using vertical opening furnaces.

CTE (25-500°C) [$*10^{-6}$ K^{-1}] ± 1.0: MiYO Colors & Structure 7.4 (2x)
CTE (25-500°C) [$*10^{-6}$ K^{-1}] ± 0.5: MiYO and InSync Glaze 7.3 (1x)
CTE (25-500°C) [$*10^{-6}$ K^{-1}] ± 0.5: MiYO Structure High Fusing 8.2 (1x)

MiYO Pink System Components

High Opacity

- Flamingo
- Crimson
- Plum
- Merlot
- Venule
- Sorbet
- Salmon
- Thistle
- Sable
- Hibiscus

High Translucency

- Midnight
- Raspberry
- Copper
- Carnation

Structure

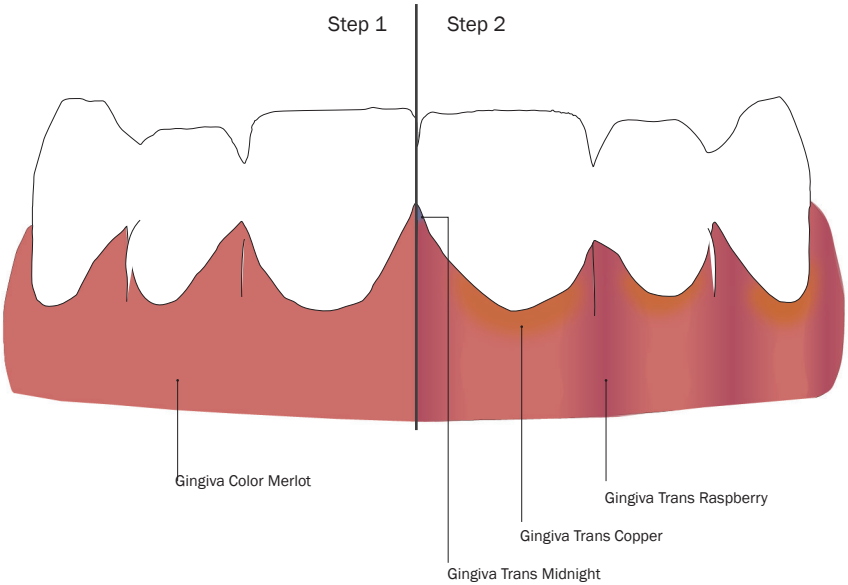
- Orchid
- Rouge
- Frost

Glaze

- no fluor

restoration & photo by James Choi

MiYO Pink Color Application Example



PREPARATION

- Mix MiYO Pink Color thoroughly with a metal free spatula.
- Add a thin layer of MiYO Glaze Paste (no fluor) before you start coloring.

APPLICATION

- Step 1: Establish the base color with appropriate MiYO Pink Gingival Color.
- Step 2: Create the eminences and adjacent tissue with suitable MiYO Pink Gingival Color. This can be accomplished by applying Trans Raspberry, Copper, or Midnight to the unfired MiYO Pink Gingival Color (base shade).

FIRING

- Fire with furnace-specific firing parameters

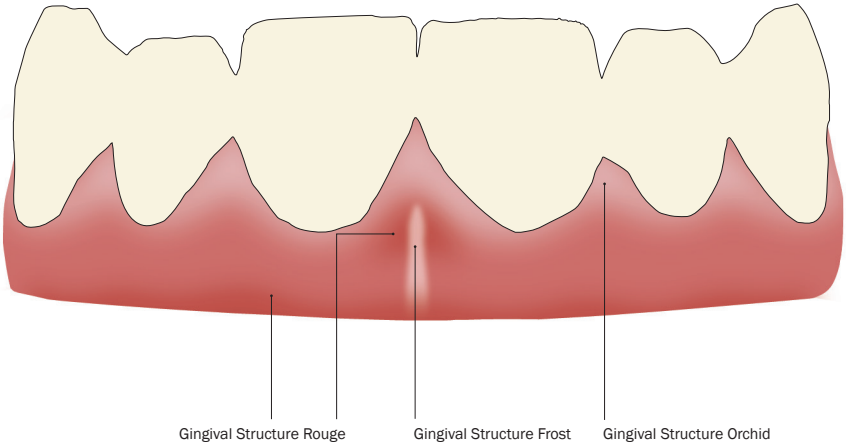
MATERIAL USED

- Gingival Color Merlot
- Gingival Trans Raspberry
- Gingival Trans Copper
- Gingival Trans Midnight
- MiYO Glaze Paste (no fluor)

NOTE: MiYO Pink Color material is shown as an example. Any MiYO Pink Color material you feel is appropriate may be used based on your case needs.

Restoration with MiYO Pink Color
restoration & photo by James Choi

MiYO Pink Structure Application Example



PREPARATION

- Color and fire the tissue as described previously
- Mix MiYO Pink Structure thoroughly with a metal free spatula.

APPLICATION

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

FIRING

- Fire with furnace-specific firing parameters.

MATERIAL USED

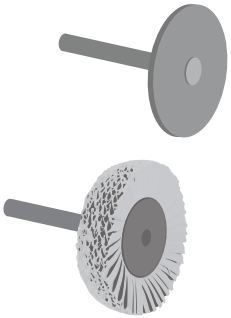
- Gingival Structure Orchid
- Gingival Structure Frost
- Gingival Structure Rouge

NOTE: MiYO Pink Structure material is shown as an example. Any MiYO Pink Structure material you feel is appropriate may be used based on your case needs.

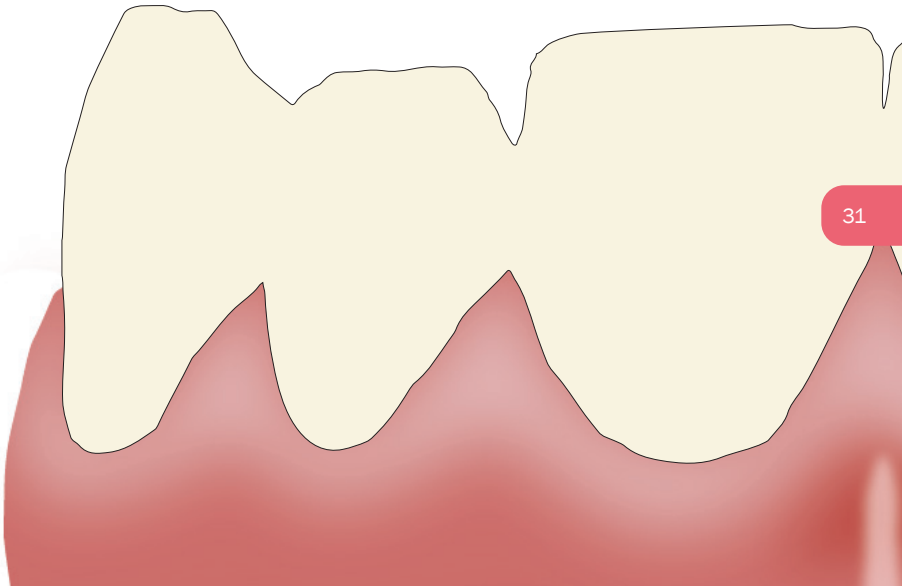
Restoration with MiYO Pink Structure
restoration & photo by James Choi

Surface texture in ultra-thin layers of 0.1-0.2mm
restoration & photo by James Choi

Finishing



After the glaze firing, the gloss level of the crown can be adjusted with pumice powder by hand or with a rotary instrument using diamond polishing paste.



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