



MAZIC[®] Zir

Pre-sintered Zirconium Oxide Blanks(Y-TZP) for CAD/CAM

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MAZIC[®] Zir

Pre-sintered Zirconium Oxide Blanks(Y-TZP) for CAD/CAM



***Biocompatibility · High Flexural Strength ·
Excellent Fracture Toughness · Esthetic***

MAZIC® Zir HT Shade

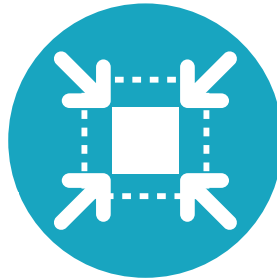
- 1100~1200MPa of Flexural strength
- Excellent fracture toughness
- Biocompatibility

Mandrel Type

Disk Type



Excellent Durability
Stable and long-term use



Stable Shrinkage
Excellent compatibility with stable shrinkage



High Density
High density with uniform particle size

● **Translucency**

Zir HT Shade



Opacity

Translucency

● **Order Information**

* Shades in parenthesis will be released, soon.




| | | | |
|--------------|------------|------------|----------|
| Mandrel | 40L | 55 | 65 |
| Size (W×L×H) | 40×19×15.5 | 55×19×15.5 | 65×25×22 |
| Shade | 0, 1, 2, 3 | | |



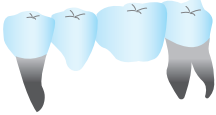
| | | | |
|-----------|--|----------------|----------------|
| Disk | Ø98 | Ø95 | Ø100 |
| Thickness | 10T, 12T, 14T, 16T, 18T, 20T, 22T, 25T | | |
| Shade | 0, 1, 2, 3 | * (0, 1, 2, 3) | * (0, 1, 2, 3) |

● Chemical Composition

| | |
|---|-----------|
| ZrO ₂ +HfO ₂ +Y ₂ O ₃ | ≥ 98 |
| Y ₂ O ₃ | 4 ~ 6 |
| Al ₂ O ₃ | ≤ 0.07 |
| Other Oxides | ≤ 0.5 |
| Flexural Strength | > 1100MPa |

● Indication

| Inlay | Coping Crown | Veneering Crown |
|---|---|---|
|  |  |  |
| | Recommended | |

| Anterior Crown | Posterior Crown | Bridge Crown |
|---|---|---|
|  |  |  |
| | Recommended | Recommended |

● Sintering Schedule

▶ Normal Electricity

| | |
|-------------------|-------------|
| Heating Rate | 3~5°C / min |
| Final Temperature | 1500°C |
| Holding Time | 2 hr |
| Cooling | Natural |

▶ Micro Wave

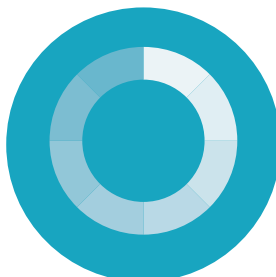
| Temperature | Heating Rate |
|-------------|----------------|
| ~ 400°C | 20°C / min |
| ~ 900°C | 10°C / min |
| ~ 900°C | Holding 20 min |
| ~ 1200°C | 10°C / min |
| ~ 1400°C | 8°C / min |
| ~ 1500°C | 5°C / min |
| ~ 1500°C | Holding 20 min |
| Cooling | Natural |

MAZIC® Zir HT Multi

- 1100~1200MPa of Flexural strength
- Natural gradation
- Saving time and Work efficiency



Excellent Durability
Stable and long-term use



Esthetic Improvement
Natural gradation



Efficiency Improvement
Saving time and work efficiency

● Translucency



● Order Information




※ Shades in parenthesis will be released, soon.



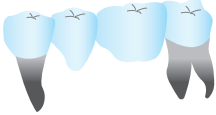
| Type | Ø98 | Ø95 | Ø100 |
|-----------|--|----------|----------|
| Thickness | 10T, 12T, 14T, 16T, 18T, 20T, 22T, 25T | | |
| Shade | Multi | ※(Multi) | ※(Multi) |

● Chemical Composition

| | |
|---|-----------|
| ZrO ₂ +HfO ₂ +Y ₂ O ₃ | ≥ 98 |
| Y ₂ O ₃ | 4 ~ 6 |
| Al ₂ O ₃ | ≤ 0.07 |
| Other Oxides | ≤ 0.5 |
| Flexural Strength | > 1100MPa |

● Indication

| Inlay | Coping Crown | Veneering Crown |
|---|---|---|
|  |  |  |
| | Recommended | |

| Anterior Crown | Posterior Crown | Bridge Crown |
|---|---|---|
|  |  |  |
| Recommended | Recommended | Recommended |

● Sintering Schedule

▶ Normal Electricity

| | |
|-------------------|-------------|
| Heating Rate | 3~5°C / min |
| Final Temperature | 1500°C |
| Holding Time | 2 hr |
| Cooling | Natural |

▶ Micro Wave

| Temperature | Heating Rate |
|-------------|----------------|
| ~ 400°C | 20°C / min |
| ~ 900°C | 10°C / min |
| ~ 900°C | Holding 20 min |
| ~ 1200°C | 10°C / min |
| ~ 1400°C | 8°C / min |
| ~ 1500°C | 5°C / min |
| ~ 1500°C | Holding 20 min |
| Cooling | Natural |

MAZIC® Zir HT Ultra

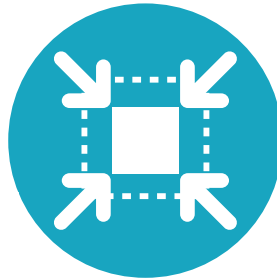
- 700~800MPa of Flexural strength
- High esthetic
- Natural tooth-like translucency

Mandrel Type

Disk Type



Translucency
Superior translucency and esthetics



Stable Shrinkage
Excellent compatibility with stable shrinkage



High Density
High density with uniform particle size

● Translucency

Zir HT Ultra



Opacity

Translucency

● Order Information

* Shades in parenthesis will be released, soon.




| | | |
|--------------|------------|------------|
| Mandrel | 40L | 55 |
| Size (W×L×H) | 40×19×15.5 | 55×19×15.5 |
| Shade | *(0, 1) | |



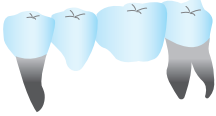
| | | | |
|-----------|-----------------------------------|---------|---------|
| Disk | Ø98 | Ø95 | Ø100 |
| Thickness | 10T, 12T, 14T, 16T, 18T, 20T, 22T | | |
| Shade | 0, *(1) | *(0, 1) | *(0, 1) |

● Chemical Composition

| | |
|---|----------|
| ZrO ₂ +HfO ₂ +Y ₂ O ₃ | ≥ 98 |
| Y ₂ O ₃ | 8 ~ 10 |
| Al ₂ O ₃ | ≤ 0.07 |
| Other Oxides | ≤ 0.5 |
| Flexural Strength | > 700MPa |

● Indication

| Inlay | Coping Crown | Veneering Crown |
|---|---|---|
|  |  |  |
| Recommended | | Recommended |

| Anterior Crown | Posterior Crown | Bridge Crown |
|---|---|---|
|  |  |  |
| Recommended | | |

● Sintering Schedule

▶ Normal Electricity

| | |
|-------------------|-------------|
| Heating Rate | 3~5°C / min |
| Final Temperature | 1530°C |
| Holding Time | 2 hr |
| Cooling | Natural |

















▶ Micro Wave

| Temperature | Heating Rate |
|-------------|----------------|
| ~ 400°C | 20°C / min |
| ~ 900°C | 10°C / min |
| ~ 900°C | Holding 20 min |
| ~ 1200°C | 10°C / min |
| ~ 1400°C | 8°C / min |
| ~ 1500°C | 5°C / min |
| ~ 1500°C | Holding 20 min |
| Cooling | Natural |

Color guide

● Body Color

※ The color guide is based on Zirconia Coloring Liquid MAZIC® Art from Vericom.

| Type | Color | Method | Type | Color | Method |
|-----------------|---|----------------------|---------------|---|----------------------|
| MAZIC® Art A1 |  | Dipping, Brushing | MAZIC® Art C1 |  | Dipping, Brushing |
| MAZIC® Art A2 |  | | MAZIC® Art C2 |  | |
| MAZIC® Art A3 |  | | MAZIC® Art C3 |  | |
| MAZIC® Art A3.5 |  | | MAZIC® Art C4 |  | |
| MAZIC® Art A4 |  | | MAZIC® Art D2 |  | |
| MAZIC® Art B1 |  | | MAZIC® Art D3 |  | |
| MAZIC® Art B2 |  | | MAZIC® Art D4 |  | |
| MAZIC® Art B3 |  | | - | | |
| MAZIC® Art B4 |  | | - | | |

● Point Color



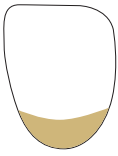

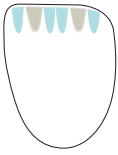

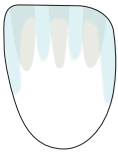

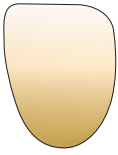

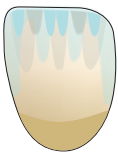

| Type | Color | Area of application |
|--------------------------|---|---|
| MAZIC® Art Blue |  | Cusp, Marginal ridge, Translucency (※ High concentration, Use a small amount) |
| MAZIC® Art Brown |  | Groove, Fossa |
| MAZIC® Art Gray Violet |  | Cusp, Marginal ridge, Translucency (※ High concentration, Use a small amount) |
| MAZIC® Art Orange Yellow |  | Groove, Fossa |
| MAZIC® Art White |  | Inner side, Opaque effect (※ Use a small amount on exact area) |
| MAZIC® Art Pink |  | Gingiva, Translucency of Cusp |
| MAZIC® Art Fluorescence |  | Ivory effect (※ Translucency could be lowered after sintering) |
| MAZIC® Art Ice Blue |  | Cusp, Translucency of occlusal area, Thin concentration (※ Apply a sufficient amount widely.) |
| MAZIC® Art Ice Gray |  | |

Coloring Method

● Instructions for coloring an anterior tooth

※ Precautions

- Please trim the surface.
- Brush off the dust on the surface with a proper tool
- Thoroughly dry it before coloring (Dry equipment is not necessary)
- For the use of tools such as brushes and tweezers, please use non-metallic only.
- Coloring liquid can be diluted with distilled water, according to preference.






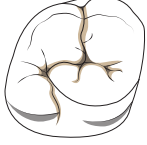




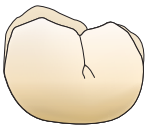
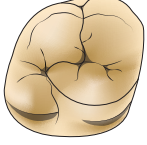


| Step | Color Liquid | Color application | | Guidelines |
|------|------------------------------------|---|---|--|
| | |  |  | Start milling process with targeting or brighter shade. |
| 1 | Body Color |  |  | Express the color of cervical area with your targeting shade or one step darker shade. ※ You can control the amount of liquid and the degree of dilution depending on the block shade |
| 2 | - Gray Violet - Blue - White |  |  | Use Gray and Blue color to express translucency. White is used at occlusal area to create a halo effect. ※ Apply thin and small amount. |
| 3 | - Ice Blue - Ice Gray |  |  | Use Ice blue and Ice gray color to express translucency. ※ Apply the appropriate amount widely. |
| 4 | Body Color |  |  | Apply the appropriate volume on the entire area with the shade as your target. If necessary, apply properly on the inner surface as well. ※ You can control the amount of liquid and the degree of dilution depending on the block shade. |
| 5 | |  |  | Sinter after completely drying. |

Coloring Method

● Instructions for coloring a posterior tooth

※ Precautions

- Please trim the surface.
- Brush off the dust on the surface with a proper tool
- Thoroughly dry it before coloring (Dry equipment is not necessary)
- For the use of tools such as brushes and tweezers, please use non-metallic only.
- Coloring liquid can be diluted with distilled water, according to preference.

| Step | Color Liquid | Color application | | Guidelines |
|------|------------------------------------|---|---|---|
| | |  |  | Start milling process with targeting or brighter shade. |
| 1 | Body Color |  |  | Express the color of cervical area with your targeting shade or one step darker shade. ※ You can control the amount of liquid and the degree of dilution depending on the block shade |
| 2 | Brown or Orange Yellow |  |  | Color on the groove and fossa area. ※ Apply small amount. |
| 3 | - Gray Violet - Blue - White |  |  | Use Gray and Blue color to express translucency. ※ Apply thin and small amount. |
| 4 | - Ice Blue - Ice Gray |  |  | Use Ice blue and Ice gray color to express translucency. ※ Apply the appropriate amount widely. |
| 5 | Body Color |  |  | Apply the appropriate amount on the entire area with the same shade as your target. If necessary, apply properly on the inner surface as well. ※ You can control the amount of liquid and the degree of dilution depending on the block shade. |
| 6 | |  |  | Sinter after completely drying. |

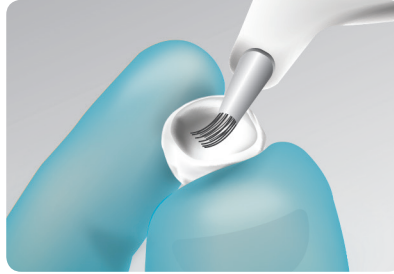
Guide Lines

● Cementation Guidelines



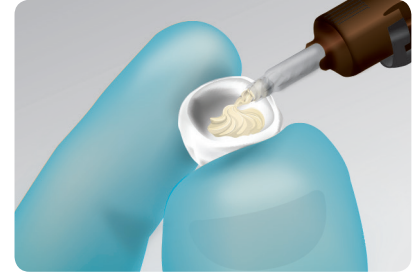
1. Intraoral Try-in

Check out proximate and occlusal surface between prosthesis and teeth. Trim the surface.



2. Silanate

Before cementation, apply silane primer and dry for 60 sec.



3. Cementation

Apply high performance self-adhesive or adhesive resin cements.



4. Final Restoration

Hold restorations in place until cement sets. And remove excess cement.

Cement for MAZIC® Zir

U-Cem™ Premium

U-Cem™ Premium is a dual-cured self adhesive resin cement that requires no pre-treatment. This material shows high bonding strength on various prosthesis and no micro-leakage. Also, it is easy to use and to remove excess cement.

Primer for MAZIC® Zir

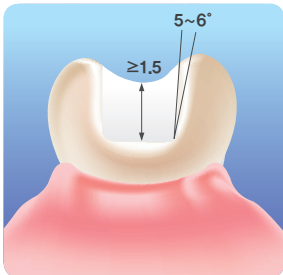
MAZIC® Primer

MAZIC® Primer Improves bonding strength between resin cement and indirect restoration such as zirconia, metal glass ceramic, lithium disilicate glass ceramic and composite resin.

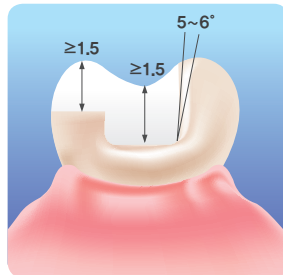


Preparation Guidelines

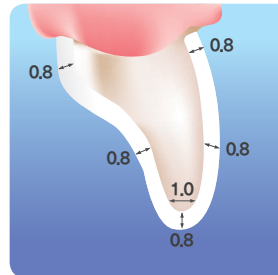
Inlay



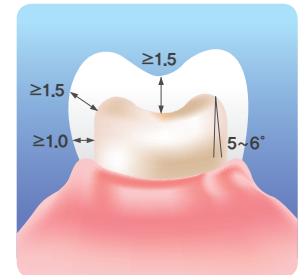
Onlay



Anterior Crown



Posterior Crown



✓ Check Point!

- MAZIC® Zir follows a prep-guideline of all ceramics restoration.
- Inside of the edge and angle should be round.
- It is recommendable to prep rounded shoulder and chamfer.
- The numerical values in guide-lines are the minimum thickness of prosthesis by MAZIC® Zir.

Good

- In case of crown, prep tooth with 5~6° taper, rounded edges and shoulder margin.
- Remove residues(temporary cement, tooth-debris and scanning spray) by a brush or soft pumice.
- Gently clean with water and blow dry by air. (Do not dry completely)

Bad

- Do not use chemicals after prep.
(Example : EDTA, CHX, Bicarbonate, Hydrogen peroxide, Hyper-esthetic agent)
- Do not use laser etching.
- Do not use temporary cement in types of eugenol affiliation.