



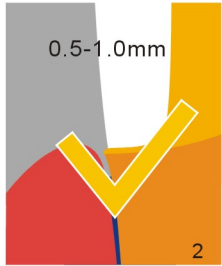
Full
Contour Crowns
User instructions



1

1. Usage

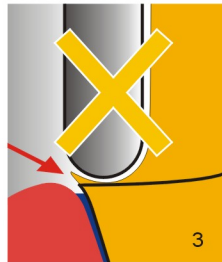
To be applied to Ucpcera ST zirconia only.



2

2. axZir solid zirconia Indications

1. For bruxist patients.
2. In cases where occlusal space is limited.
3. In implant cases placed on abutments.
4. Other cases resulting in great likelihood of porcelain fracture or chipping

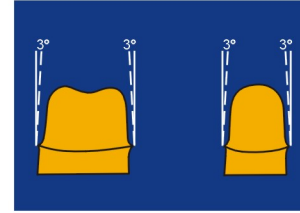


3

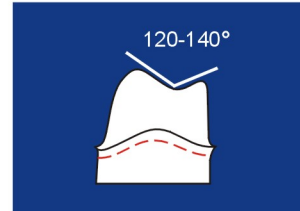
3. Tooth preparation

1. Prepare the tooth with a round and smooth shoulder, or a blunt horizontal right-angle shoulder (Picture 1), Recommended width of the shoulder is 0.5 ~ 1.0mm (Picture 2).

Note: Avoid shoulderless preparation or inclined shoulder.



2. A reduction of 0.8 ~ 1.5mm should be made from the occlusal surface and the incisal area, axis-surface angle should be between 3° ~ 6°, fossa area of the occlusal surface and the axis should be rounded, corner radius should be bigger than 0.5mm. (See the picture)



3. Angle of the occlusal surface should be 120° ~ 140° to insure the precise copy of coping surface when milling hence to get a good fit.

4. For bridges, the abutments are required to be parallel to avoid undercut.

4. An overview of the process in making a full contour crown

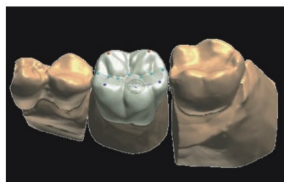


1 Scanning

Scan the model with precision dental scanner assuring the scan is accurate to within 20 microns.

2 CAD Design

Design of the restoration could be created by any Dental CAD Software. The technician can design full-contour crowns or bridges according to the case requirements. Individual tooth shapes can be selected from CAD databases.



3Shape Dental System™



3 CAM Milling

Full-contour crowns and bridges can be precisely milled by quality dental machining centers.



4 Crown detachment

Use a low speed hand-piece to separate the crown from the zirconia disc, to avoid fracture on the crown, the rotation speed should be no more than 10,000rev/min.



5 Fossa treatment

To refine the fossa of premolars and molars, use a fissure bur.

Note: Fracture may occur if the bur is not sharp enough.



6 Cleaning

Remove zirconia dust from the crown with small brush. Wet milled crowns should be cleaned with water before colouring. (Refer to section 8 for infrared drying)

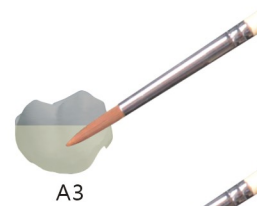


7 Colouring

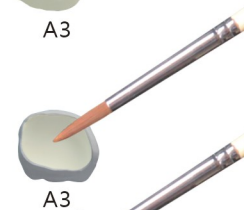
3 methods are available for colouring: dipping, brushing, dipping + brushing

1. Dipping

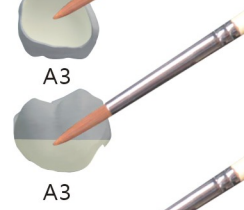
Fully immerse the crown in the colour liquid, for 2-5 mins.



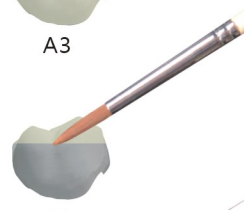
A3



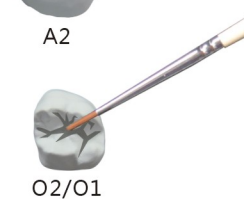
A3



A3



A2



O2/O1

2. Brushing

E.g: To create an A3 restoration.

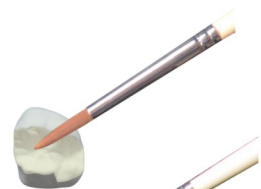
① Paint A3 over outside cervical and body areas 3-5 times with Porcelain pen No.6.

② Brush A3 twice over the whole fitting surface with Porcelain pen No.6.

③ Brush A3 over inside and outside cervical area 3-5 times with pen No.6.

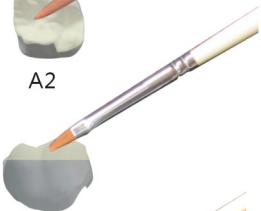
④ Brush A3 over occlusal surface 3-5 times with pen No.6.

⑤ Brush O1 or O2 over occlusal fossa area 1-2 times with No.0 or OP pen.



A2

⑥ Brush A2 over the whole occlusal surface 2 ~ 3 times with pen No.6.



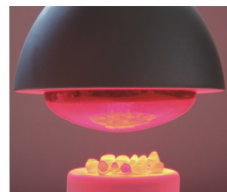
G2

⑦ Brush G2 over occlusal surface twice with pen No.0

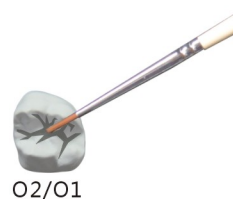


G1

⑧ G1 shade could be used on the cusp.



② Dry the framework for 20 ~ 30 mins under a infrared lump.



O2/O1

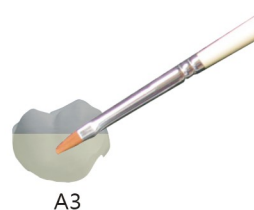
③ Brush O1 or O2 on fossa for once or twice with No.0 pen (lighter is better).



3. Dipping + Brushing

To create and A3 restoration :

① Immerse the framework in A2 liquid for 2 ~ 5 mins.



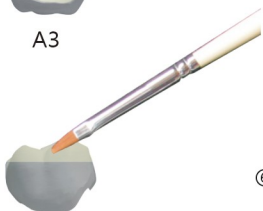
A3

④ Brush cervical and middle with A3 shade for once, and one more for cervical with OP pen.



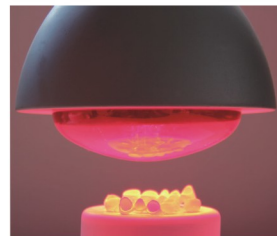
A3

⑤ Brush A3 on the whole fitting surface for once, and brush A3 on cervical area for once with OP pen.



G2

⑥ Brush G2 on occlusal for one or twice with OP pen.



8 Infrared drying

Keep the framework 80 ~ 100mm from the lamp. Dry 30 mins for single crown; 30 ~ 90 mins for bridges.

Noe:

- 1) Make sure the framework is fully dried before colouring.
- 2) Use the palette or graduate flask supplied in your kit.
- 3) Use plastic tweezers in your kit, do not use metal tweezers. Gloves are recommended when colouring frameworks.
- 4) Do not put the used liquid back to the bottle to avoid contamination.
- 5) Use Upcera dilute liquid other than water to dilute the colour liquid.
- 6) Keep the bottle sealed after using, recommended storage temp is 0-4 °C.
- 7) Use a tissue to wipe the crown before drying, the crown has to be cooled down to room temperature if need to be brushed again.



9 Sintering

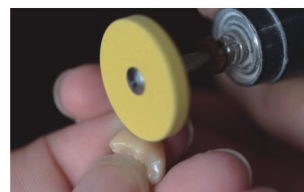
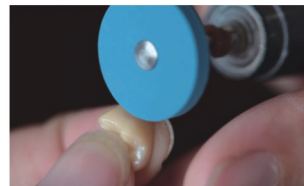
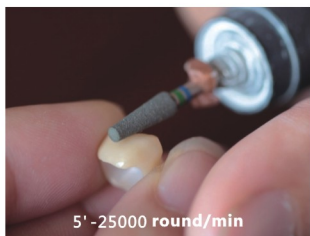
- 1) Refer to sintering program on page 15. If greater translucency is required, sintering temperature can be raised to 1530°C, but there will be a slight colour fade. In this case, you can modify the colour with stain or use a deeper colour liquid.



2) Place the restoration upwards to avoid beads get into it. Make sure all the restoration connect the beads. For long bridges more than 8 units, it is recommended to leave the bridge attached to a supportive base to avoid distortion.

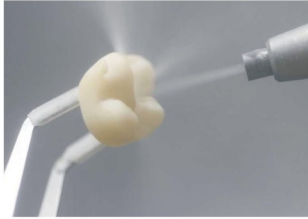
10 Trimming

Trim the restoration with stones special for zirconia(eg. Bu11 & Bu12) or water colled emery milling bur. (Please follow the instruction of each tool, especially pay attention to rotation speed, too much force may lead to partial heating which can cause fractures).



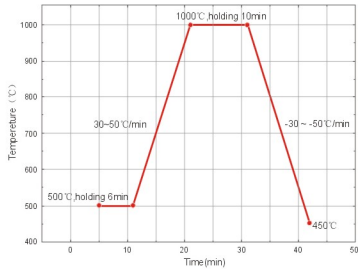
11 Polishing

Use special zirconia polisher (e. Silicon polishers, Bu21,Bu22,Bu31, Bu 32 rotation speed 3000~ 6000rev/M) to polish the occlusal surface, and polish the buccal and distal surface if needed.



12 Sandblasting

Sandblast under 2 ~ 2.5Bar with 50µm AL₂O₃ grit. Polish the crown if applicable.



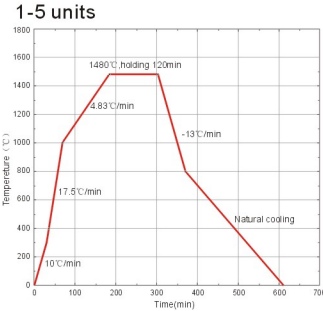
13 Heat Treatment

Use ceramic furnace to heat the framework, with the heating curve as picture showed.

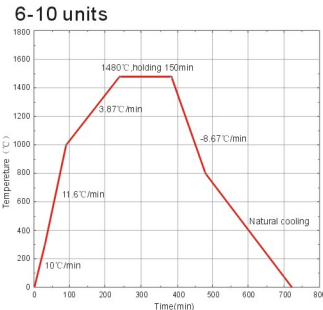


14 Glazing

Glaze the framework, Sofu, Vita, Ivoclar galze are recommended.



NOTE: If greater translucency is required, sintering temperature can be raised to 1530 degrees, but there will be a slight color fade.



Recommended colouring method for different shade

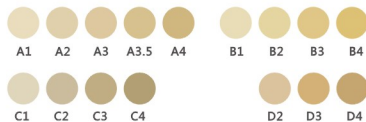
Shade	Method
A1	Dipping
A2	Dipping
A3	Brushing
A3.5	Brushing
A4	Brushing
B1	Dipping
B2	Brushing
B3	Brushing
B4	Brushing
C1	Dipping
C2	Brushing
C3	Brushing
C4	Brushing
D2	Dipping
D3	Brushing
D4	Brushing



axZir Kit of colour liquid :

1) Basic shade + Special shade + Diluent:

Basic shade (16 shade)



Special pink pink-prple violet orange brown light-grey grey
shades P1 P2 P3 O1 O2 G1 G2

2) Othe tools :

- | | | |
|-----------|---|-----------|
| Colouring | Palette | Pen No.6 |
| | Graduated flask | Pen No.0 |
| | Tubularis | Pen No.OP |
| | Diluent | Tweezers |
| Trimming | Trimming stone (Bu11 , Bu12) | |
| Polishing | Polishing stone (Bu21 , Bu22 , Bu31 , Bu32) | |



To create the perfect colour

Advantages :

- Natural colour reproduction, giving a ture colour match natural tooth
- Rich colour meeting the diverse needs of our customers
- Simple operation
- Short drying time

