



**axZir**  
solid zirconia

*2013 Upgraded full contour  
zirconia solution*

*Colour*

**16 shade ST**  
**pre-shaded zirconia**  
**User instructions**

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**FDA** **CE** **SFDA** **KFDA** **TÜVRheinland®**  
K 093560 0197 Precisely Right.

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16 shade ST (super translucent) pre-shaded zirconia is fabricated by our pre-coloured process, with even, stable and accurate shades. An upgraded full contour solution is created together with Upcera Magic Liquid and glazing treatments.

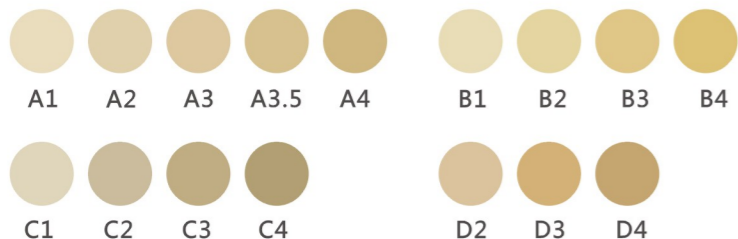
- Dental zirconia upgraded
- Operation process upgraded
- Technical training upgraded

#### Advantages of the new 2013 solution

- Easy operation, less process time, high efficiency, low cost
- Controllable quality, lower cracking rate
- Retains true shade even after chairside adjustments in the surgery



#### Shade system with 16 ST pre-shaded blanks



Subject to the real shade of the blank

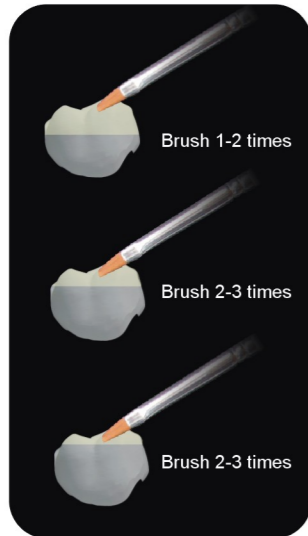
#### Performance of ST pre-shaded blank

Specification /Shade	D98 & D100								Density/g.m <sup>3</sup>	Three-point bending strength/MPa	Visible light transmittance/%(1mm)
	10	12	14	16	18	20	22	25			
ST-A1	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	38.92%
ST-A2	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	36.34%
ST-A3	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	33.87%
ST-A3.5	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	30.87%
ST-A4	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	32.31%
ST-B1	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	39.00%
ST-B2	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	37.07%
ST-B3	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	34.25%
ST-B4	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	32.52%
ST-C1	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	37.78%
ST-C2	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	35.21%
ST-C3	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	34.01%
ST-C4	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	32.81%
ST-D2	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	36.84%
ST-D3	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	33.90%
ST-D4	✓	✓	✓	✓	✓	✓	✓	✓	6.08	1100	33.68%

## Instructions for use

### 1. Removing the crown from the disc

To detach the crown from the block, remove the holding sprues with a pencil sandblaster set at 2 bar pressure, taking care to aim the nozzle from the non fit surface side only, then remove dust carefully from the crown with a clean brush.

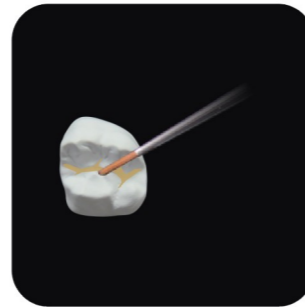


#### 2.1 Incisal colouring:

Colour the incisal with T0 Magic Liquid. (Brushing from the central to the occlusal of the crown with an OP pen is recommended)

### 2. Crown colouring

Crowns made with a pre-shaded blank do not need to be coloured, and can be sintered as milled. For higher aesthetic requirements and individual restoration cases, T0 Magic Liquid can be used in the incisal area.



#### 2.2 Fossa colouring:

Use O1 or O2 liquid to colour the fossa. (Brushing one time with 00 glaze pen is recommended)



#### 2.3 Crown drying:

Dry under the infrared lamp with a distance of 80-100mm for 20-50 mins.

#### ⚠ Note:

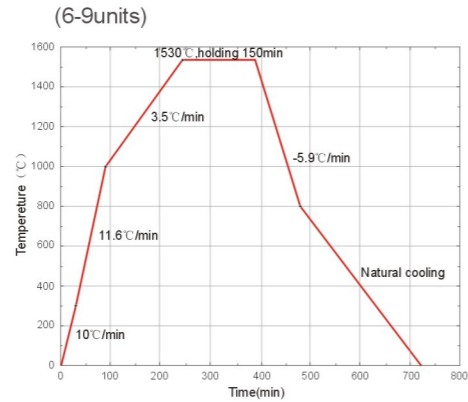
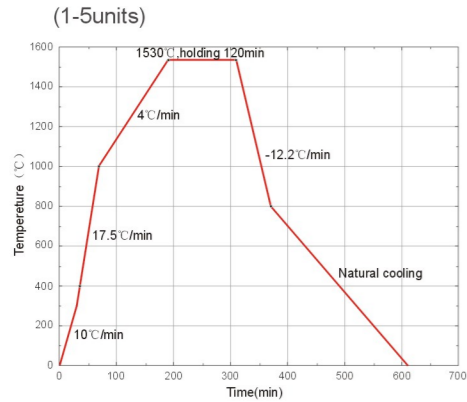
- (1) T0 is only for part of the crown, and must not be used on the connector
- (2) O1 and O2 should be brushed in small amounts, to avoid too deep a shade after sintering
- (3) Store the liquid at 0-4°C
- (4) The liquid should be poured as needed into a separate small dish for use. Keep the cap closed on all liquid bottles to avoid liquid evaporation, and do not return unused liquid from the dish to the bottle, so as to avoid contamination.
- (5) Pre-shaded blanks must always be dry milled, wet milling will affect the shade and the translucency of the crown because of additives in the water.
- (6) If colourants are used, the crown must be completely dried before sintering

### 3. Crown sintering

The crown should be sintered at **1530°C**, with a holding time of 2 hours.

- **Tips:** A lower temperature will create a deeper shade and lower translucency  
A higher temperature will create a lighter shade and higher translucency, but a worse ageing characteristic

Sintering curve refer to below:



⚠ Note: To make sure the sintering temperature is the same as the program temperature, please make sure your furnace is calibrated correctly.



### 4. Trimming and polishing

Trim the crown with an emery wheel. (Please follow the instruction of the tools when trimming the crown, do not use too much force or subfissures may occur) After fully trimming with the emery wheel, the polishing process can be carried out to get a fine and smooth surface of the crown.

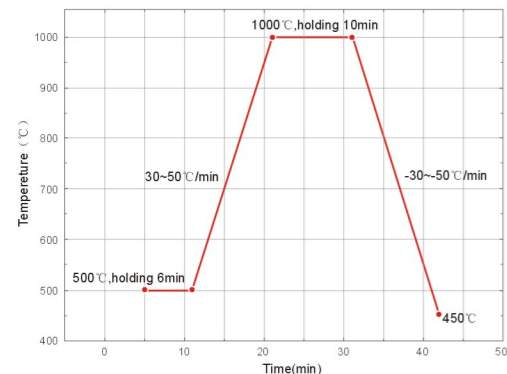
### 5. Sandblasting

Sandblasting under 2-2.5Bar ( 0.2-0.25Mpa ) with **50µm** Al<sub>2</sub>O<sub>3</sub> grit.



## 6. Heat treatment

Use a porcelain furnace to heat treat the crown at 1000°C, which can lower the shade deviation, and recover the strength.



Note:

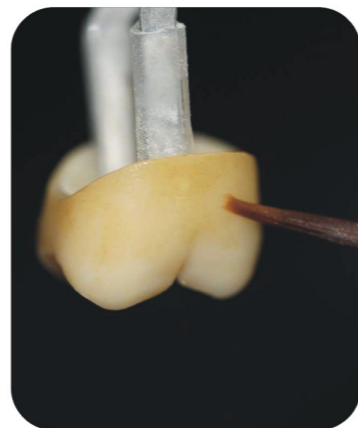
- (1) Thick crowns (> 2mm) or long bridges need a slower heating and cooling rate.
- (2) Put the crown on the high-temp firebrick when the furnace temp is lower than 300°C, leave to cool naturally.

## 7. Tinting

ART paste is needed for a fine shade.

VINTAGE ART  
BASIC COLORS

Shade	Shade image	Shade Adjustment	Neck	Colouring	Incisal	Gingiva
Pink		<input type="radio"/>	<input type="radio"/>			<input type="radio"/>
Yellow		<input type="radio"/>				
Blue		<input type="radio"/>			<input type="radio"/>	
Orange		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		
Violet		<input type="radio"/>			<input type="radio"/>	<input type="radio"/>
Green		<input type="radio"/>				
Black		<input type="radio"/>		<input type="radio"/>		
White				<input type="radio"/>	<input type="radio"/>	
Dark Red Brown			<input type="radio"/>	<input type="radio"/>		
Orange Brown			<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Khaki			<input type="radio"/>	<input type="radio"/>		
A shade		<input type="radio"/>		A1 A2 A3 A3.5 A4 rootA		
B shade		<input type="radio"/>		B1 B2 B3 B4 rootB		
C shade		<input type="radio"/>		C1 C2 C3 C4 rootC		
D shade		<input type="radio"/>		D2 D3 D4		
R shade		<input type="radio"/>		R1 R2 R3 R3.5 R4		



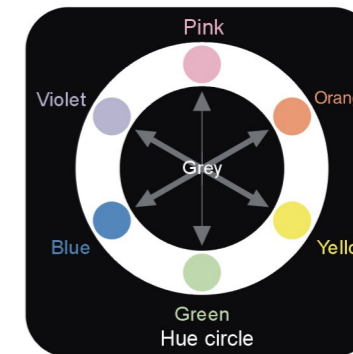
- Please contact Upcera sales manager for Shofu paste.

## 8. Glazing

Glaze the crown for optimal aesthetics effect.



- ⚠ Note: Please operate in strict accordance with the above steps, to assure the shade accuracy and uniformity.



- ☀ TIPS: Basic shades above could be combined to grey, adjustment on the full contour shade can be done in this way.

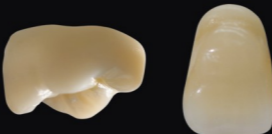
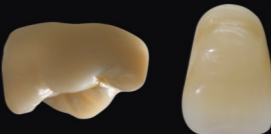
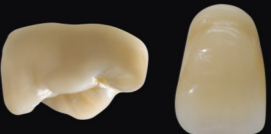
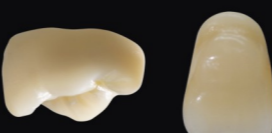
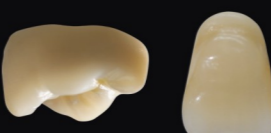
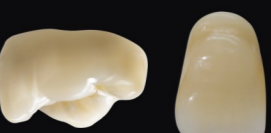
## Upzir full contour zirconia case


### ( 1 ) Crown effect comparison under different conditions

( A3 sample)

<p>No T0 liquid was used before sintering</p> 	<p>Untreated before sintering</p>
<p>Use T0 liquid before sintering</p> 	<p>Use T0 liquid on the incisal area of the crown</p>
<p>Fossa before and after treatment</p> 	<p>Fossa treated by O2 liquid before sintering</p>

### ( 2 ) Crown shade adjustment( use A shade to deepen the shade of the crown)

		
<p>No T0 liquid was used before sintering</p>	<p>Adjust by A shade</p>	<p>After glazing</p>
		
<p>Use T0 liquid on the incisal area before sintering</p>	<p>Adjust by A shade</p>	<p>After glazing</p>

 Note: To get a D4 shade, please add some B shade to the D shade