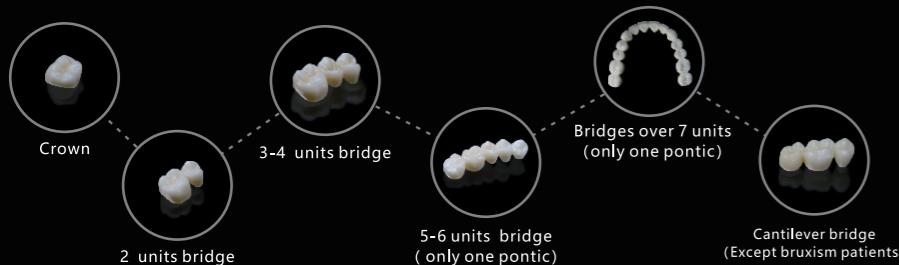


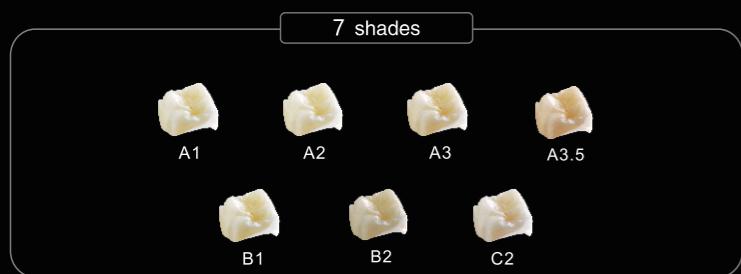
TT-ONE zirconia is advanced all in one zirconia with following features:

- Strength > 1000MPA
- Translucency >47%
- Available for pre-shaded and multilayer

Indications



Available shade



Physical characteristics

Density before sintering	> 2.8g/cm ³
Density after sintering	6.04±0.03g/cm ³
CTE (25-500°C)	(10.5±1.0)X10 ⁻⁶ K ⁻¹
Accelerated aging surface monoclinic phase content	< 5%
Chemical solubility after sintering	< 100 ($\mu\text{g}/\text{cm}^2$)
Cytotoxicity test	Level 0
Radioactivity	< 0.1(Bq/g)
Sintering temperature	1450-1500°C recommend 1480°C

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GUIDANCE



TT-ONE Preshaded / Multilayer

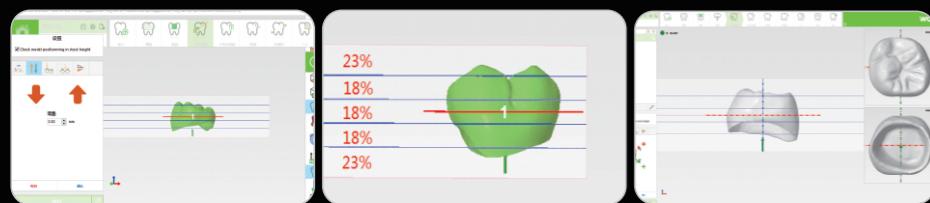
Procedure



Step 1 CAM software design

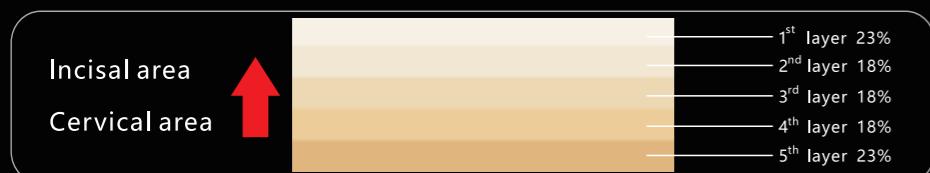
For example: WORKNC software

Set the required data in CAM software (like WORKNC 4.0 or higher version) and make sure to reserve 2-4mm for incisal area (1st layer).



Step 2 Milling

- Choose the suitable size of TT-one zirconia according to the shade and height of the final restoration.
- Refer to the layer lines in CAM software for positioning the restoration pay attention to the incisal direction (↑ marked on the side of the block) when placing the block in the holder.



Step 3 Sintering

Use the below sintering program specially designed for UPCERA TT-ONE:

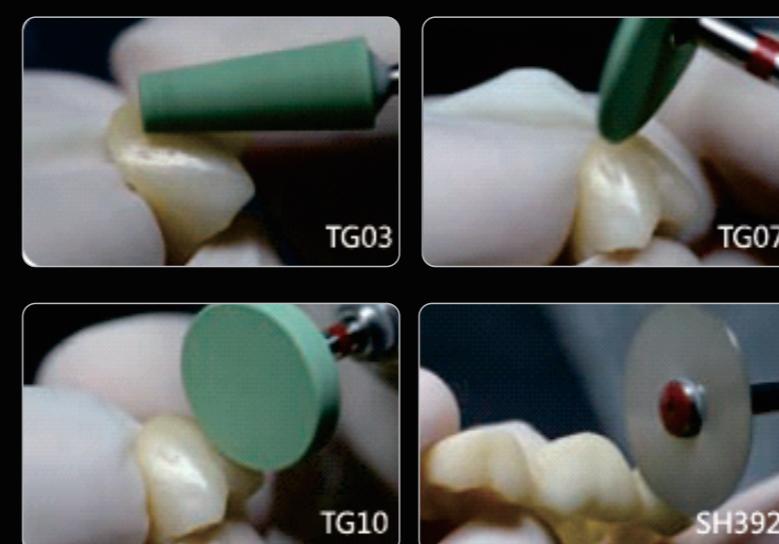
Procedure	Start temperature (°C)	Finishing temperature (°C)	time (min)
Step1	Room temperature	1150	140.63
Step2	1150	1150	30
Step3	1150	1300	75
Step4	1300	1480	37.5
Step5	1480	1480	120
Step6	1480	800	81.25
Step7	800	100	Furnace cooling

Note:

- the ideal temperature for TT-ONE is 1480°C keep 2 hours.
- the real temperature inside the sintering furnace must be tested before sintering to ensure the consistency of the sintering temperature and the program temperature.

Step 4 Grinding

Grind the restoration with Upcera stones series TG03.TG07.TG10 (8000-12000rev/M) or water-cooled diamond burs.SH392 can be used to polish the interdental areas if necessary. (When finishing a sintered zirconia restoration, be careful with the grinding speed and the pressure, otherwise local hotspots created can lead to cracking.)



Step 5 Polishing

Use special zirconia polishers(e.g Upcera polishing kit DPH2Z, DPH8Z, DPH2F, DPH8F, DPH9F, at rotation speeds of 8000-12000 rev/M)to polish the occlusal surface, and polish the buccal and distal surfaces as required.



Step 6 Sandblasting



Sandblast under 2-2.5Bar with 50µm Al₂O₃ grit, Polish the crown if applicable.

Step 7 Glazing

Glazing process

Glazing cycle							
Starting temp (°C)	Drying time (min)	Pre-heat time (min)	Heating rate (°C/min)	Highest temp (°C)	Holding time (min)	Final temp (°C)	Cooling time (min)
400	3	2	50	830	2-4	400	4

NB. For bridges, reduce the heating rate to 35 °C/min.

