

- High permeability
- Superior anti-aging
- Strong resistance to bending performance

MATERIAL CHARACTERISTICS





According people know more about zirconia ceramic material and show more advantages for prosthodontic ,Aidite insist on innovation,studying spirit ,and devoting to zirconia ceramic applied research,so that improve performance and restoration effect of clinical application .

Aidite launch new ST material zirconia ceramic blocks. Its transmittance has obvious improvement to compare old 03HT material blocks,. New ST material fit for comprehensive indications,like crown,framework,full contour crown/bridge,implant superstructure etc,because of higher transmittance ,bending strength is above 1000Mpa and superior aging resistance.On the basis of HS material,ST material have more superior aesthetic effect, stable quality and competitive prices. More and more customers will pay attention on and using it!



ST Technical Parameters

Chemical composition and powder characteristic

Y ₂ O ₃	5.3wt%
Al ₂ O ₃	≤0.25wt%
SiO ₂	≤0.02wt%
Fe ₂ O ₃	≤0.02wt%
Na ₂ O	≤0.02wt%
Aging properties	monoclinic phase < 25%
Solubility	≤2000μg.cm-2

Mechanical property.

Sintered density	≥6.0g/cm ³
Flexural Strength	1000Mpa
Fracture Toughness	5Mpam ^{0.5}
Hardness (Hv10)	1250

Transparency



Preparation

1. Prepare teeth into suitable bevel or rounded shoulder.
2. The milling thickness of edge of cervical region is at least 1mm.
3. Occlusal surface and incisal need to grind 1.5mm-2.0mm.
4. Knuckle radius should be 0.7mm.
5. Axial surface aggregation should be 6-8 degree.
6. For bridge, abutment teeth should be parallel to avoid undercut



ST DIRECTIONS FOR USE

Application Range

Coping

bridges

full contour crown

full contour bridges

implant superstructure

tetracycline stained teeth

ST Directions [It is same production flow for full contour crown/bridge and coping ,but deleting porcelain process,after sintering ,adjust the occlusion link,then stain and glaze directly.]

Scanning and designing

milling

cleaning

sintering

grinding and polishing

porcelain

staining

finished

Scanning and Designing: Please scan with high precision scanner to get accurate data then design according to the condition of patients and the requirements of doctors.

Milling: When dealing with the restoration, Aidite zirconia ceramic block is recommended. To get a satisfactory restoration, please ensure work with new milling burs and avoid use cooling liquid.

Cleaning: Polish the connector lightly with hand-piece, and separate the restoration from zirconia block. Note that the cleaned dental crown should be kept from water, perspiration, grease dirt, dust, and the powder dropped from the milling burs

Dyeing: Use plastic forceps to place the crown or bridge into the immersion container; the restoration must be completely covered by the coloring liquid. please leave the frameword in the dyeing liquide for 60 seaonds. Then use plastic forceps to remove it, natural drying it until there is no obvious liquid on the surface. Next, start drying process. We suggest you dry the crown under 100°C with controlling the time as 30 min above.

Sintering: The cleaned restoration must be places upside down on the

zirconium bead in crucible, avoiding adhesion on zirconium bead. The sintering process is attached.

Polishing: For crown, first coarsely grind with special grinding tool then trim the form and adjust the occlusion. After simply polishing, start fine grinding and proceed to staining and glazing.For coping, after fine grinding with Fine grinding burs and start porcelain directly.

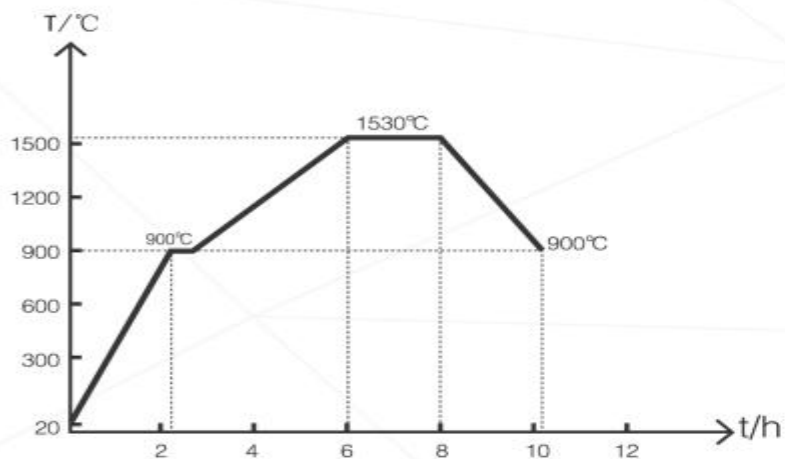
Porcelain and staining: When porcelain the coping, it should be operated according to the instruction of the porcelain manufacturer. In order to avoid cleft, basal structure should be designed into anatomical morphology to ensure the even thickness of the veneer porcelain layer. If necessary, make joint layer according to the requirements of porcelain powder manufacturer. When designing basement structure, avoid bite edge to exert direct force on teeth edge.

Completion: complete the process of restoration making.



【SINTERING INSTRUCTION】

sintering process after coloring



ST Zirconia ceramic block

Aidite zirconia blocks have Higher strength, better penetration, Easier operation, higher transparency, more competitive prices advantage.

Let you have more choices, much more perfect teeth!

sintering process after staining and glazing (for the bridges ,in order to avoid the cracks, we suggest you slow down the rate)

Start temp	dry	Heating rate	Highest temp	Maintain time	Final temp
600°C	4min	50°C/min	820°C	2min	600°C

- New ST material fit for comprehensive indications, like crown, framework, full contour crown/bridge, implant superstructure etc, because of higher transmittance, bending strength is above 1000Mpa and superior aging resistance.

- We believe ST zirconia material will be pioneer of dental restoration field, because it contains many advantages, like perfect aesthetic effect, stable quality and competitive prices.




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