



**NATURE
SCIENCE
ART**

	HT-Plus	ST	SHT	UT	3D-Pro
White	 <p>40% Translucent 1400 Mpa</p>	 <p>43% Translucent 1200 Mpa</p>	 <p>46% Translucent 1000 Mpa</p>	 <p>49% Translucent 650 Mpa</p>	
Shaded	 <p>39% Translucent 1350 Mpa</p>	 <p>42% Translucent 1100 Mpa</p>	 <p>45% Translucent 900 Mpa</p>	 <p>49% Translucent 650 Mpa</p>	
Multilayer		 <p>42% Translucent 1100 Mpa</p>	 <p>45% Translucent 900 Mpa</p>	 <p>49% Translucent 650 Mpa</p>	 <p>42~57% Translucent 800~1200 Mpa</p>



OPEN
CAD/CAM/
SYSTEM



ZIRKONZAHN
CAD/CAM/
SYSTEM



AMANN
GIRRBACH
CAD/CAM/
SYSTEM

Size	HT-Plus	ST	SHT	UT	3D-Pro
OD98*10mm(H)	✓	✓	✓	✓	✓
OD98*12mm(H)	✓	✓	✓	✓	✓
OD98*14mm(H)	✓	✓	✓	✓	✓
OD98*16mm(H)	✓	✓	✓	✓	✓
OD98*18mm(H)	✓	✓	✓	✓	✓
OD98*20mm(H)	✓	✓	✓	✓	✓
OD98*22mm(H)	✓	✓	✓	✓	✓
OD98*25mm(H)	✓	✓	✓	✓	✓
OD98*30mm(H)	✓	✓	✓	✓	✓
OD95*10mm(H)	✓	✓	✓	✓	✓
OD95*12mm(H)	✓	✓	✓	✓	✓
OD95*14mm(H)	✓	✓	✓	✓	✓
OD95*16mm(H)	✓	✓	✓	✓	✓
OD95*18mm(H)	✓	✓	✓	✓	✓
OD95*20mm(H)	✓	✓	✓	✓	✓
OD95*22mm(H)	✓	✓	✓	✓	✓
OD95*25mm(H)	✓	✓	✓	✓	✓
OD95*30mm(H)	✓	✓	✓	✓	✓
/					
89*71*12mm(H)	✓	✓	✓	✓	✓
89*71*14mm(H)	✓	✓	✓	✓	✓
89*71*16mm(H)	✓	✓	✓	✓	✓
89*71*18mm(H)	✓	✓	✓	✓	✓
89*71*20mm(H)	✓	✓	✓	✓	✓
/					
89*71*25mm(H)	✓	✓	✓	✓	✓

- 1) Absolutely no addition of any binder during the whole process.*
- 2) Every product can be traced with the exact process parameters.*
- 3) The usage of each block was illustrated precisely with sintering factors and suggested sintering temperature.*
- 4) Varies of transparent (up to 57% transparency), white, colorful and multilayered products can be provided.*
- 5) Excellent engraving ability, sintering ability, and homogeneity.*
- 6) Good compatibility with the popular engraving machines.*

QUALITY & ADVANTAGES



MIYEN

3D Pro

Multilayer

HT-Plus (White)

- High translucent
- Brilliant bending strength and economical Block
- long-term stability
- Superior personalized internal dyeing solutions
- Suitable for coping, framework etc



Indications



crown



inlay



onlay



bridge



coping



full arch

Coloring Liquid

A1 A2 A3 A3.5 A4 | B1 B2 B3 B4
C1 C2 C3 C4 | D2 D3 D4

≥1400

Bending strength (MPa)

40%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	4.5%-6.0%	Density after sintering (g/cm ³)	6.08-6.10	Cytotoxicity	0 level
Al ₂ O ₃	< 0.25%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.15%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1500-1550

HT-Plus (Shaded)

- Excellent shading properties
- High translucent
- Brilliant bending strength and economical Block
- Suitable for coping, framework



Indications



crown



inlay



onlay



bridge



coping



full arch

Shades



≥1350

Bending strength (MPa)

39%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	4.5%-6.0%	Density after sintering (g/cm ³)	6.08-6.10	Cytotoxicity	0 level
Al ₂ O ₃	< 0.25%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.15%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1500-1550

ST (White)

- Superior translucency
- Suitable for bridge, crown etc
- Superior personalized internal dyeing solutions.



Indications



crown



inlay



onlay



bridge



anterior



full arch

Coloring Liquid

A1 A2 A3 A3.5 A4 | B1 B2 B3 B4
C1 C2 C3 C4 | D2 D3 D4

≥1200

Bending strength (MPa)

43%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	4.5%-6.0%	Density after sintering (g/cm ³)	6.08-6.10	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.15%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1480-1530

ST (Shaded)

- Combination of strength and transparency
- Excellent shading properties
- Suitable for bridge, crown, posterior teeth etc



Indications



crown



inlay



onlay



bridge



anterior



full arch

Shades



≥1100

Bending strength (MPa)

42%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	4.5%-6.0%	Density after sintering (g/cm ³)	6.08-6.10	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.15%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1480-1530

ST (Multilayer)

- Gradient color layers with natural transitions
- Combination of strength and transparency
- Suitable for bridge, crown, posterior teeth etc



Indications



crown



inlay



onlay



bridge



anterior



full arch

Shades



≥1100

Bending strength (MPa)

42%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	4.5%-6.0%	Density after sintering (g/cm ³)	6.08-6.10	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.15%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1480-1530

SHT (White)

- High aesthetic impact
- Superior personalized internal dyeing solutions
- Suitable for bridge, crown, aesthetic anterior teeth etc



Indications



crown



inlay



onlay



bridge



anterior

Coloring Liquid

A1 A2 A3 A3.5 A4 | B1 B2 B3 B4
C1 C2 C3 C4 | D2 D3 D4

≥1000

Bending strength (MPa)

46%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	7.0%-7.8%	Density after sintering (g/cm ³)	6.07-6.09	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.5%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1500-1550 Recommend 1530

SHT (Shaded)

- Excellent shading properties
- Easy operation, high efficient
- Suitable for bridge, crown, aesthetic anterior teeth etc



Indications



crown



inlay



onlay



bridge



anterior

Shades



A1



A2



A3



A3.5



A4



B1



B2



B3



B4



C1



C2



C3



C4



D2



D3



D4



BL1



BL2



BL3



BL4

≥900

Bending strength (MPa)

45%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	7.0%-7.8%	Density after sintering (g/cm ³)	6.07-6.09	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.5%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1500-1550 Recommend 1530

SHT (Multilayer)

- Soft gradient layers
- Aesthetic restoration for natural and realistic looking
- Suitable for bridge, crown, aesthetic anterior teeth etc



Indications



crown



inlay



onlay



bridge



anterior

Shades



≥900

Bending strength (MPa)

45%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	7.0%-7.8%	Density after sintering (g/cm ³)	6.07-6.09	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.5%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1500-1550 Recommend 1530

UT (White)

- Ultra translucent
- Suitable for crown, anterior teeth, veneer etc



Indications



coping



inlay



onlay



veneer



anterior

Coloring Liquid

A1 A2 A3 A3.5 | B1 B2 B3 B4

≥650

Bending strength (MPa)

49%

Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.15-3.25	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	9%-10%	Density after sintering (g/cm ³)	6.05-6.07	Cytotoxicity	0 level
Al ₂ O ₃	< 0.05%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.05%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1435-1450

UT (Shaded)

- Ultra Translucency
- Excellent shading properties
- Suitable for crown, anterior teeth, veneer etc



Indications



coping



inlay



onlay



veneer



anterior

Shades



≥650

Bending strength (MPa)

49%

Light transmittance

Chemical Components and Properties

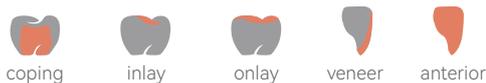
ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.15-3.25	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	9%-10%	Density after sintering (g/cm ³)	6.05-6.07	Cytotoxicity	0 level
Al ₂ O ₃	< 0.05%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.05%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1435-1450

UT (Multilayer)

- Ultra translucent
- Multi-layer gradient colors
- Translucent texture with delicate luster
- Suitable for crown, anterior teeth, veneer etc



Indications



Shades



≥650

Bending strength (MPa)

49%

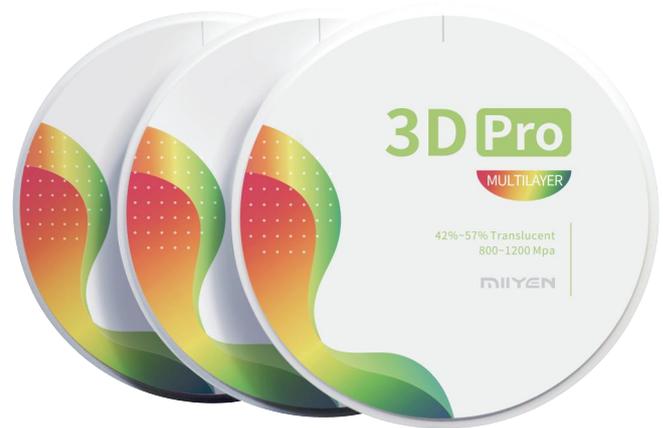
Light transmittance

Chemical Components and Properties

ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.15-3.25	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	9%-10%	Density after sintering (g/cm ³)	6.05-6.07	Cytotoxicity	0 level
Al ₂ O ₃	< 0.05%	CTE (25-500°C) (/K)	10.5	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.05%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1435-1450

3D-Pro (Multilayer)

- 5 layers material produces, 9 layers gradient colour
- From 42% to 57% gradient for transparency
- Strength shows gradient from 800Mpa to 1200Mpa
- All in one



Indications



Shades



800-1200

Bending strength (MPa)

42%-57%

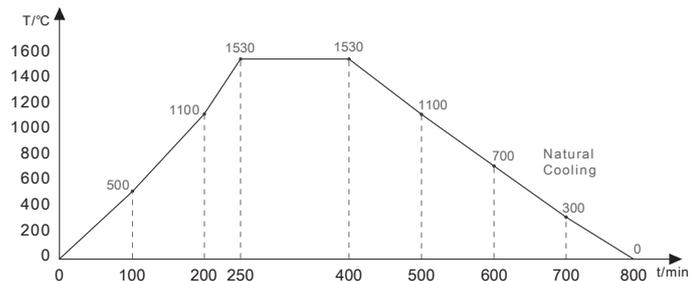
Light transmittance

Chemical Components and Properties

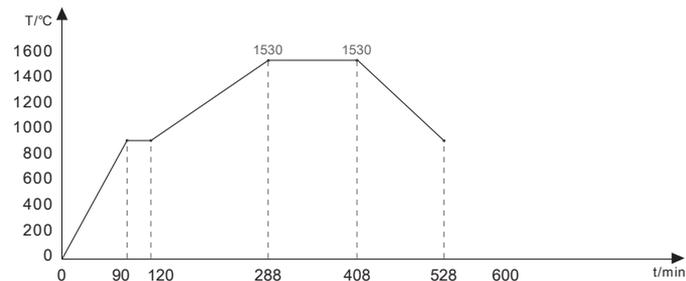
ZrO ₂ +HfO ₂ +Y ₂ O ₃	≥99%	Density before sintering (g/cm ³)	3.10-3.20	Chemical solubility after sintering (ug/cm ²)	<100
Y ₂ O ₃	4.5%-10%	Density after sintering (g/cm ³)	6.05-6.09	Cytotoxicity	0 level
Al ₂ O ₃	< 0.15%	CTE (25-500°C) (/K)	10.0-11.0	Radioactivity (Bq/g)	<0.1
Other Oxides	< 0.5%	Accelerated aging surface monoclinic phase content	<15%	Sintering temperature (°C)	1480-1530 Recommend 1500

Sintering Temperature

• HT-Plus (White)

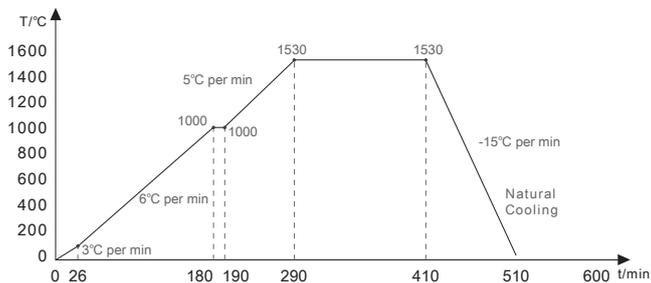


• HT-Plus (Shaded)

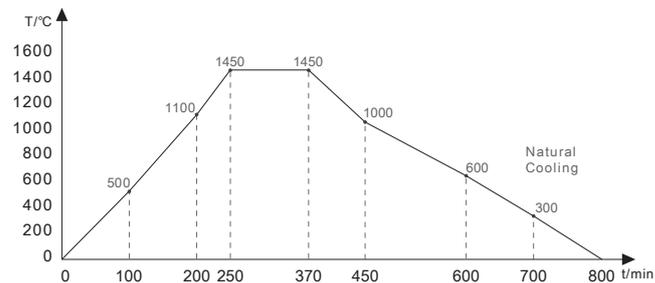


ZIRCONIA BLOCK	HT-Plus	ST	SHT	UT	3D-Pro-Multilayer
SINTERING TEMPERATURE(°C)	1500-1550	1500-1550	1480-1530	1435-1470	1480-1530
RECOMMEND TEMPERATURE(°C)	1530	1530	1530	1450	1500

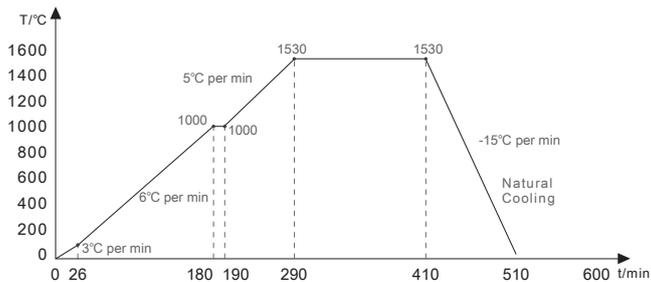
• **ST** (White & Shaded & Mutilayer)



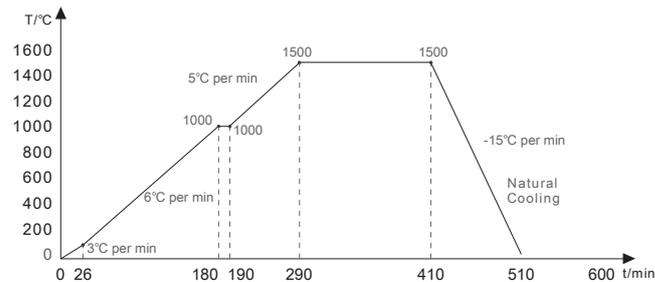
• **UT** (White & Shaded & Mutilayer)



• **SHT** (White & Shaded & Mutilayer)



• **3D-Pro-ML** (Mutilayer)



Sintering temperature of ST/HT-plus is from 1500°C to 1550°C, UT is from 1435°C to 1470°C, SHT/3D-pro is from 1480°C to 1530°C, you should make sure peak temperature at this range.

The recommended sintering temperature corresponding to them are **1530°C, 1450°C and 1500°C**.

Coloring Liquid

Coloring liquid for all-ceramic dental prosthesis

The main ingredients: Deionized water, polyethylene glycol, barium nitrate

Specifications and Models

COLORING LIQUID	SHADES	SPECIFICATIONS
HT	A1-D4 16 shades	50ml/bottle
ST	A1-D4 16 shades	50ml/bottle
SHT	A1-D4 16 shades	50ml/bottle
UT	A1,A2,A3,A3.5 B1,B2,B3,B4	50ml/bottle
3D-Pro-ML	/	/
Indicator	Red, Blue, Yellow	10ml/bottle

SPECIAL LIQUID	WITHOUT INDICATOR	SPECIFICATIONS
Incisal	T0(Translucency)	50ml/bottle
Dilution	D0(Translucency)	50ml/bottle

Usage

Used for coloring inner crown, full zirconia teeth and bridges.

Soaking Method(for example for A3)

- Soak the crown into A3 dyeing liquid for 1 minute
 Note:The Soaking time has a small effect on the color crowns with a thickness of less than 1.5mm;
 The thicker the crown , the Soaking time will be larger effect to the color of crown.
 For crown thicker than 3mm, we recommended to soak in a light color .
 Cover the cup to prevent the evaporation of water from darkening .
- Take the crown out with plastic tweezers , then clean the dyeing liquid inside and outside of the crown.
- Dry the crown with infrared drying lamp.
 Note:Dry 30 minutes for single crown and consecutive crown (thickness< 2mm), dry more than 60 minutes for bridge or thicker crown. The distance between infrared drying lamp and crown is according to the power of lamp.
 Usually the temperature on the surface of crown should be less than 100°C.

Note

- The dyeing liquid should be stored separately, suggest to be stored at room temperature(20±5°C). If room temperature changes too much, we suggest to store dyeing liquid in refrigerator. Take the bottle out from refrigerator half an hour before using it.
- If you soak several crowns once, crowns can't be soaked with overlapping, and you move the crowns slightly during Soaking, so the crowns contact positions can be changed, which will be better for color dyeing.

Coloring Liquid

Soaking + Brushing Method

1. Soak the crown with A2 dyeing solutions. Details please see above soaking method
2. Dry the crown with infrared drying lamp for 20-30 minutes (see above)
3. Dyeing method of fossa, groove and incisal please see in below
4. Brush A3 liquid once on 1/3 middle and 1/3 neck with No.4-6 porcelain brush.
5. Brush A3 liquid once or twice inside the crown with No. 4-6 porcelain brush.
6. Brush A3 liquid once on 1/3 neck with OP brush or No.4-6 porcelain brush.

Note

Brush T0 liquid 2-3 times on 1/3 parts of incisal with OP brush or No.1 glaze brush.

Dyeing fossa and groove

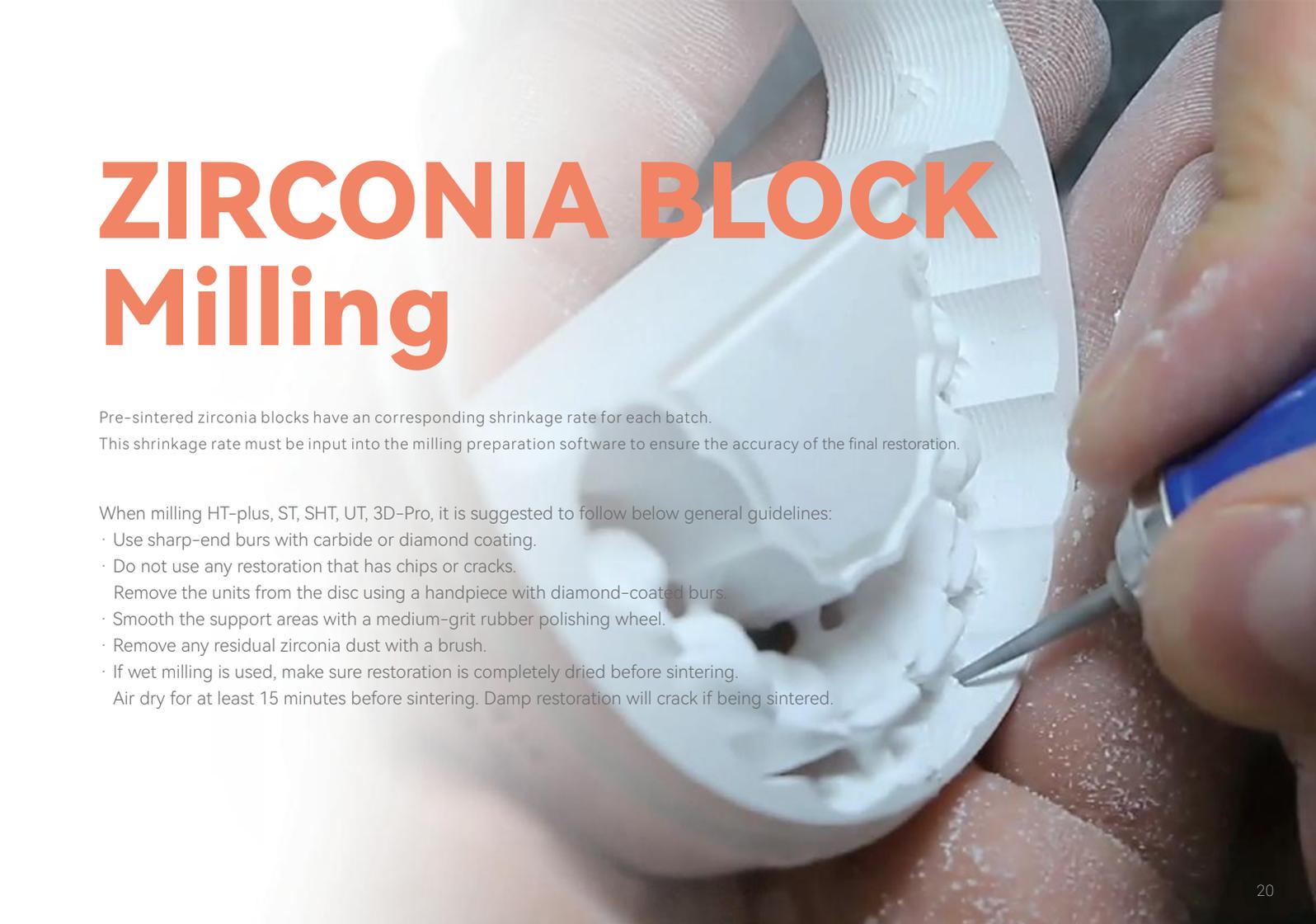
Brush fossa and groove coloring liquid with No.0 or No.00 glaze brush (Only brush main fossa and groove) or brush A3 liquid twice with No.4-6 porcelain brush.

Dyeing fossa and groove

1. Dyeing liquid and crown should keep clean and dry. (Water processing is not suggested).
The crown should be dried before dyeing if it is produced under water processing)
2. Dyeing liquid is weakly acidic. Please wear gloves for people with sensitive skin, if it gets in your eyes accidentally, rinse immediately with water and seek medical treatment in time.
3. Do not dilute the dyeing solution with water by yourself to avoid affecting the color stability.
4. After dyeing, the crown should be dried before sintering. To avoid contamination of the internal components of the sintering furnace and hidden cracks in the crown. For dyeing of bridge, it is recommended to use 01 liquid + brushing method to reduce the color difference between the bridge body and crowns.



ZIRCONIA BLOCK Milling



Pre-sintered zirconia blocks have an corresponding shrinkage rate for each batch.
This shrinkage rate must be input into the milling preparation software to ensure the accuracy of the final restoration.

When milling HT-plus, ST, SHT, UT, 3D-Pro, it is suggested to follow below general guidelines:

- Use sharp-end burs with carbide or diamond coating.
- Do not use any restoration that has chips or cracks.
 - Remove the units from the disc using a handpiece with diamond-coated burs.
- Smooth the support areas with a medium-grit rubber polishing wheel.
- Remove any residual zirconia dust with a brush.
- If wet milling is used, make sure restoration is completely dried before sintering.
 - Air dry for at least 15 minutes before sintering. Damp restoration will crack if being sintered.

MIIYEN

ZHONGSHAN MIIYEN NEW MATERIAL TECHNOLOGY CO., LTD

Add: Yujing Industry Zone, 106 Qihao Road, Torch Development District, Zhongshan, Guangdong, China, 528400

Tel: +86 760 8789 3825 Fax: +86 760 8789 3827

Website: www.baotbio.com www.baotdent.com