

# ZIRCONIA

All Zirconia You Need



CE

ISO13485

FDA

Health Canada

KFDA

GOST



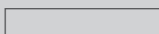













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www.upcera-dental.com


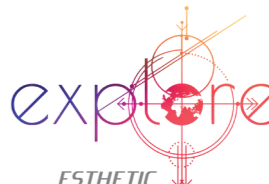
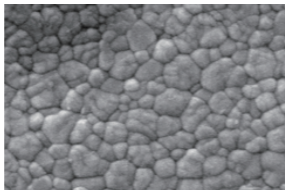
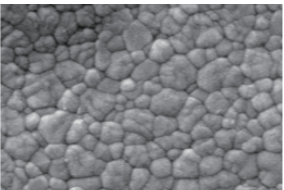
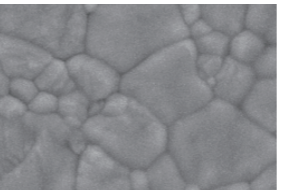
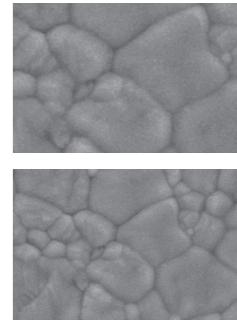
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• RELIABLE MATERIALS EXPERT •

# All Zirconia You Need

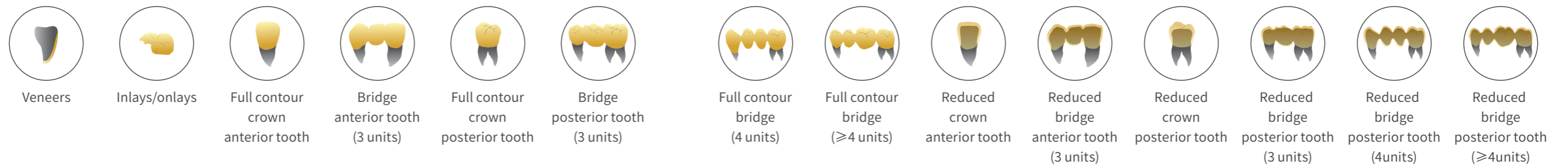
	3Y-TZP-A	3Y-TZP	4Y-PSZ	5Y-PSZ	3Y-TZP-4Y-PSZ	4Y-PSZ-5Y-PSZ
 WHITE	 HT White	 ST White	 TT-ONE	 TT White		
 PRE-SHADED		 ST Pre-shaded	 TT-ONE Pre-shaded			
 MULTILAYER		 ST Multilayer	 TT-ONE Multilayer	 TT Multilayer	 Functional Explore	 Esthetic Explore

Zirconia Type	<i>HT</i>	<i>ST</i>	<i>TT-ONE</i>	<i>TT</i>		
Translucency	39%	43%	47%	49%	43%-46.6%	47%-48.8%
Strength	1300MPa	1300MPa	1000MPa	600MPa	1027MPa-1300MPa	727MPa-1000MPa
Restoration Type	Coping	Coping Full Contour Crown	Full Contour Crown	Full Contour Crown (Aesthetic)	Full Contour Crown	Full Contour Crown (Aesthetic)
Sintering Temperature	1530°C	1530°C	1480°C	1450°C	1480°C	1480°C
Microstructure						

## >> Specification

Applied For	Specification(mm)	Package	HT White	ST White	ST Pre-shaded	ST Multilayer	TT White	TT Multilayer	TT-ONE Pre-shaded	TT-ONE Multilayer	Functional Explore	Esthetic Explore
 Open CAD/CAM System	D98x10(stepless)	1pc/box	✓	✓	✓		✓					
	D98x12(step&stepless)	1pc/box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	D98x14(step&stepless)	1pc/box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	D98x16(step&stepless)	1pc/box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	D98x18(step&stepless)	1pc/box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	D98x20(step&stepless)	1pc/box	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	D98x22(step&stepless)	1pc/box	✓	✓	✓		✓					
	D98x25(step&stepless)	1pc/box	✓	✓	✓		✓					
 Cerec in lab (Sirona)System	20x14x15	12pcs/box	✓	✓	✓		✓					
	20x19x15	10pcs/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	40x14x15	8pcs/box	✓	✓	✓		✓					
	40x19x15	6pcs/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	55x19x15	5pcs/box	✓	✓	✓		✓					
	65x25x22	4pcs/box	✓	✓	✓		✓					
	65x40x22	2pcs/box	✓	✓	✓		✓					
	85x40x22	2pcs/box	✓	✓	✓		✓					
 Zirkozahn CAD/CAM System	D95x10	1pc/box	✓	✓	✓		✓					
	D95x12	1pc/box	✓	✓	✓		✓					
	D95x14	1pc/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	D95x16	1pc/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	D95x18	1pc/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	D95x20	1pc/box	✓	✓	✓		✓					
	D95x22	1pc/box	✓	✓	✓		✓					
	D95x25	1pc/box	✓	✓	✓		✓					
 Amann Girrbach CAD/CAM System	89x71x10	1pc/box	✓	✓	✓		✓					
	89x71x12	1pc/box	✓	✓	✓		✓					
	89x71x14	1pc/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	89x71x16	1pc/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	89x71x18	1pc/box	✓	✓	✓	✓	✓		✓	✓	✓	✓
	89x71x20	1pc/box	✓	✓	✓		✓					
	89x71x22	1pc/box	✓	✓	✓		✓					
	89x71x25	1pc/box	✓	✓	✓		✓					

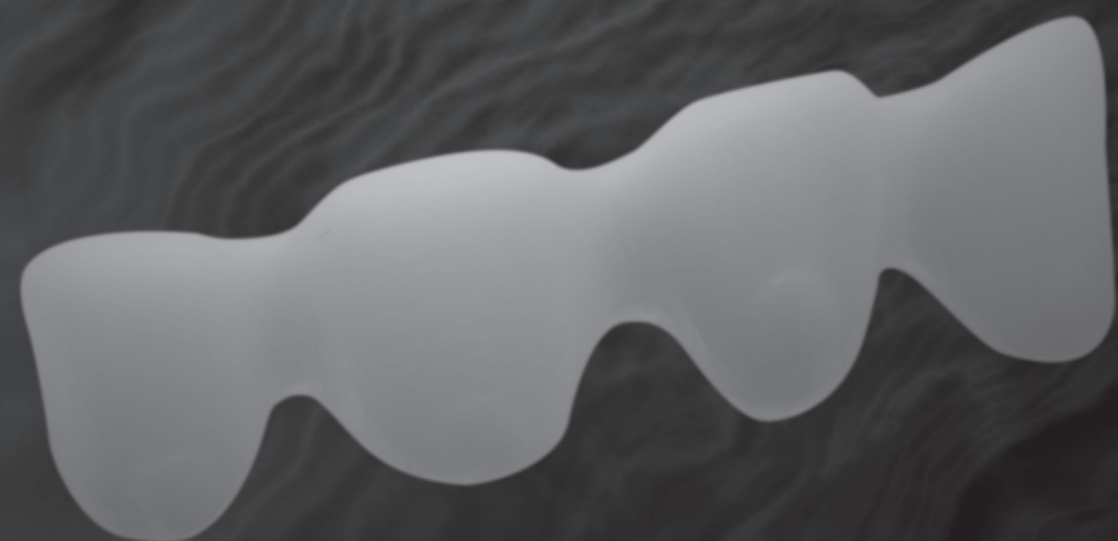
## >> Indication Guide



	Veneers	Inlays/onlays	Full contour crown anterior tooth	Bridge anterior tooth (3 units)	Full contour crown posterior tooth	Bridge posterior tooth (3 units)	Full contour bridge (4 units)	Full contour bridge (≥4 units)	Reduced crown anterior tooth	Reduced bridge anterior tooth (3 units)	Reduced crown posterior tooth	Reduced bridge posterior tooth (3 units)	Reduced bridge posterior tooth (4 units)	Reduced bridge posterior tooth (≥4 units)
HT White	●	●	●	●	●	●	●	●	★	★	★	★	★	★
ST White	●	●	●	●	✓	✓	✓	★	★	★	★	★	★	★
ST Pre-shaded	●	●	●	●	✓	✓	✓	★	★	★	★	★	★	★
ST-Multilayer	●	●	●	●	✓	✓	✓	★	★	★	★	★	★	★
TT-ONE	●	●	✓	✓	★	★	★	✓	✓	✓	✓	✓	✓	●
TT-ONE Preshaded	●	●	✓	✓	★	★	★	✓	✓	✓	✓	✓	✓	●
TT-ONE Multilayer	●	●	✓	✓	★	★	★	✓	✓	✓	✓	✓	✓	●
TT White	●	●	★	★	★	★	×	×	✓	✓	✓	✓	×	×
TT Multilayer	●	●	★	★	★	★	×	×	✓	✓	✓	✓	×	×
Functional Explore	●	●	✓	✓	★	★	★	✓	✓	✓	✓	✓	✓	✓
Esthetic Explore	●	●	★	★	★	★	●	×	✓	✓	✓	✓	●	×

★ optimum    ✓ available    ● available but not recommended    × unavailable

# HT White



## HT White

- Suitable for coping and framework
- Superior strength



### • Physical Characteristics

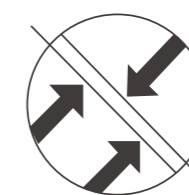
Density after sintering	6.07±0.01g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<10%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1400-1580°C recommend 1530°C

### • Chemical Composition

ZrO <sub>2</sub> + HfO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub>	>99%
Y <sub>2</sub> O <sub>3</sub>	4.5%-6%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Others oxides	<0.5%



**TRANSLUCENCY**  
**39%**



**STRENGTH**  
**1300MPa**

# ST Series

ALL ZIRCONIA YOU NEED  
ST WHITE

RELIABLE MATERIALS EXPERT

## ST White

- Suitable for full contour crown and bridge
- Excellent machinability



### • Physical Characteristics

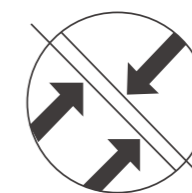
Density after sintering	6.08±0.01g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<15%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1400-1580°C recommend 1530°C

### • Chemical Composition

ZrO <sub>2</sub> + HfO <sub>2</sub> + Y <sub>2</sub> O <sub>3</sub>	>99%
Y <sub>2</sub> O <sub>3</sub>	4.5%-6%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Others oxides	<0.5%



**TRANSLUCENCY**  
**43%**



**STRENGTH**  
**1300MPa**

# ST Pre-shaded

- Suitable for full contour crown and bridge

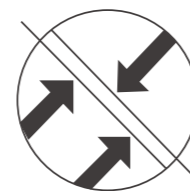


## • Physical Characteristics

Density after sintering	6.08±0.01g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<15%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1400-1580°C recommend 1530°C

## • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>97%
Y <sub>2</sub> O <sub>3</sub>	4.4%-5.5%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.3%
Er <sub>2</sub> O <sub>3</sub>	<1.0%
Others oxides	<1.2%



**STRENGTH**  
**1300MPa**

# ST Multilayer

- Suitable for full contour crown and bridge

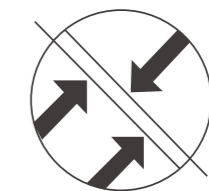


## • Physical Characteristics

Density after sintering	6.08±0.01g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<15%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1400-1580°C recommend 1530°C

## • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>97.7%
Y <sub>2</sub> O <sub>3</sub>	4.4%-5.5%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.3%
Er <sub>2</sub> O <sub>3</sub>	<1.0%
Others oxides	<1.2%



**STRENGTH**  
**1300MPa**



# TT ONE Series

ALL ZIRCONIA YOU NEED  
TT-ONE

RELIABLE MATERIALS EXPERT

## TT-ONE

- Suitable for all indications
- Natural esthetics



### • Physical Characteristics

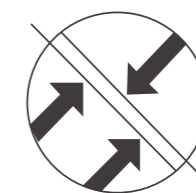
Density after sintering	$\geq 6.0 \text{ g/cm}^3$
CTE(25-500°C)	$(10.5 \pm 1.0) \times 10^{-6} \text{ K}^{-1}$
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100 $\mu\text{g/cm}^2$
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1480°C

### • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%



**TRANSLUCENCY**  
**47%**



**STRENGTH**  
**1000MPa**

# TT-ONE Pre-shaded

- Suitable for all indications



## • Physical Characteristics

Density after sintering	≥6.0g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100μg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1480°C

## • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%



# TT-ONE Multilayer

- Suitable for all indications



## • Physical Characteristics

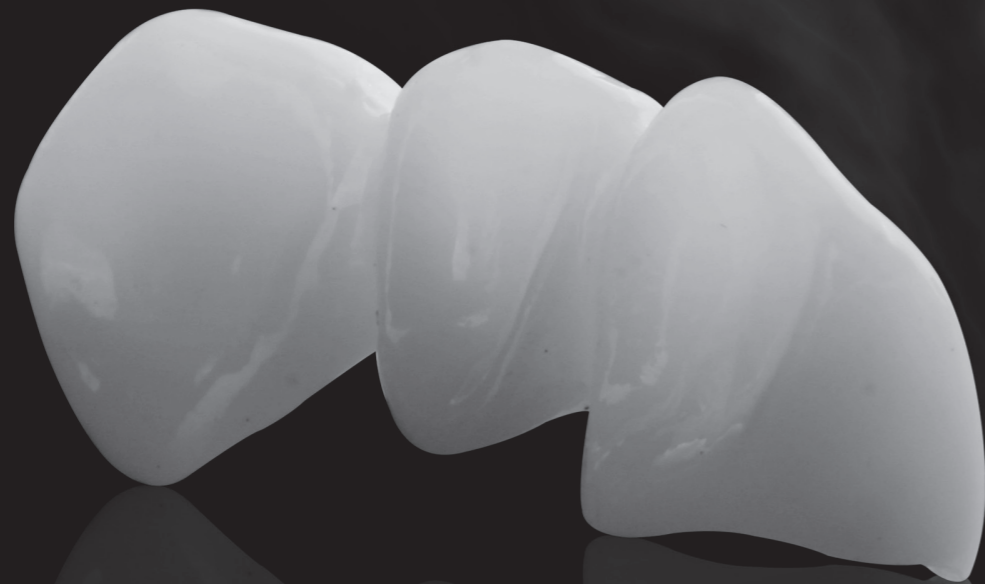
Density after sintering	≥6.0g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100μg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1480°C

## • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%



# TT Series



ALL ZIRCONIA YOU NEED  
TT WHITE

RELIABLE MATERIALS EXPERT

## TT White

- Suitable for anterior restoration
- Superior translucency



### • Physical Characteristics

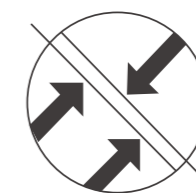
Density after sintering	$\geq 6.0 \text{ g/cm}^3$
CTE(25-500°C)	$(10.5 \pm 1.0) \times 10^{-6} \text{ K}^{-1}$
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100 $\mu\text{g/cm}^2$
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1450°C

### • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%



**TRANSLUCENCY**  
**49%**



**STRENGTH**  
**600MPa**

# TT Multilayer



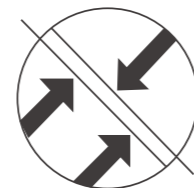
- Suitable for anterior restoration

### Physical Characteristics

Density after sintering	≥6.0g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)x10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1450°C

### Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%



**STRENGTH  
600MPa**

# Explore Series

New Generation Multilayer

# FUNCTIONAL EXPLORE



- Suitable for all indications

## • Physical Characteristics

Density after sintering	≥6.0g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1480°C

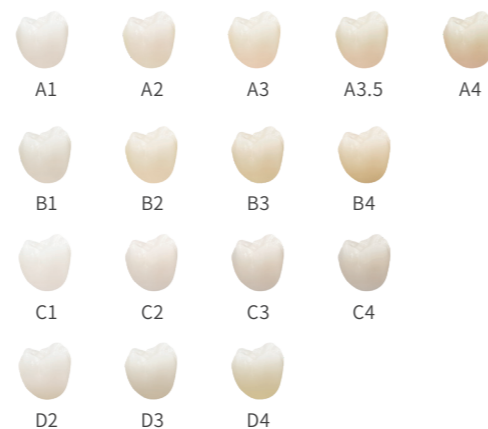
## • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%

Light 1027MPa 46.6% 4.3MPa·m<sup>1/2</sup>

↑ SHADE ↑ STRENGTH ↑ TRANSLUCENCY ↑ TOUGHNESS

Dark 1300MPa 43% 5.1MPa·m<sup>1/2</sup>



# ESTHETIC EXPLORE



- Suitable for all indications

## • Physical Characteristics

Density after sintering	≥6.0g/cm <sup>3</sup>
CTE(25-500°C)	(10.5±1.0)×10 <sup>-6</sup> K <sup>-1</sup>
Accelerated aging surface monoclinic phase content	<5%
Chemical solubility after sintering	<100µg/cm <sup>2</sup>
Radioactivity	<0.1Bq/g
Sintering temperature	1430-1550°C recommend 1480°C

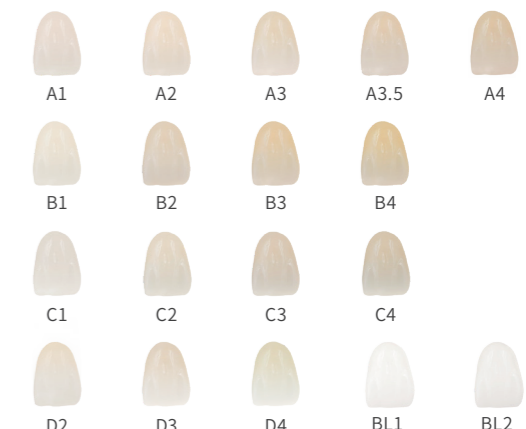
## • Chemical Composition

ZrO <sub>2</sub> +HfO <sub>2</sub> +Y <sub>2</sub> O <sub>3</sub>	>96.5%
Y <sub>2</sub> O <sub>3</sub>	5.8%-9.7%
Al <sub>2</sub> O <sub>3</sub>	<0.5%
Fe <sub>2</sub> O <sub>3</sub>	<0.5%
Er <sub>2</sub> O <sub>3</sub>	<2.0%
Others oxides	<0.5%

Light 727MPa 48.8% 3.5MPa·m<sup>1/2</sup>

↑ SHADE ↑ STRENGTH ↑ TRANSLUCENCY ↑ TOUGHNESS

Dark 1000MPa 47% 4.3MPa·m<sup>1/2</sup>





Jiang Shan

Famous Dental Aesthetic Restoration Expert in China

