

# Perfit™

Perfect Aesthetic Zirconia Solution

#Since2000 #PioneerofZirconium #WalkintoVatech #ft.Brandnew  
#Perfectfitprosthetics #Likenooother #Don'smissit



Perfit



Vol. 01

**vatech**

38, Saneop-ro 155 beon-gil, Gwonseon-gu, Sunwon-si, Gyeonggi-do, Korea 16648

**Email.** [sales@vatechmcis.com](mailto:sales@vatechmcis.com)

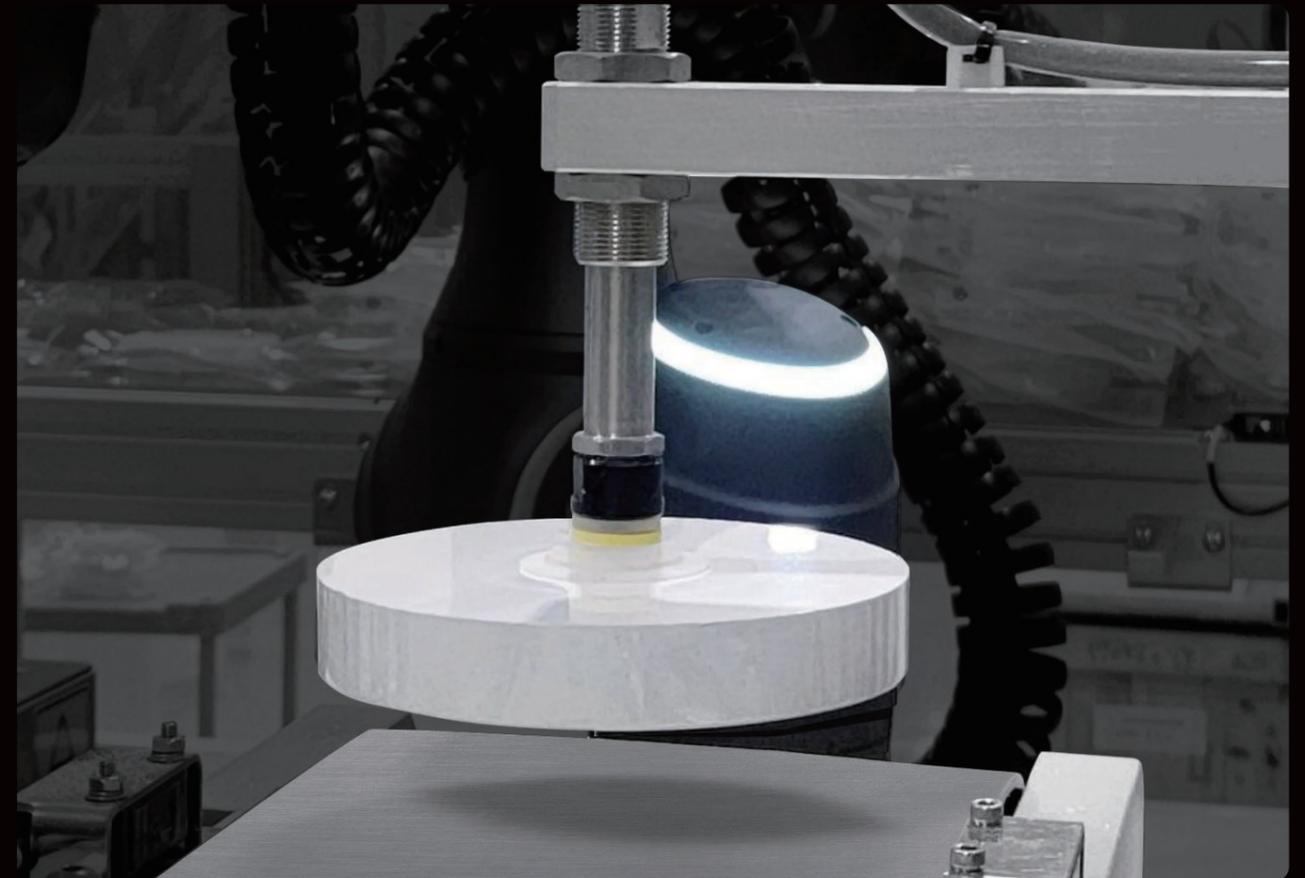
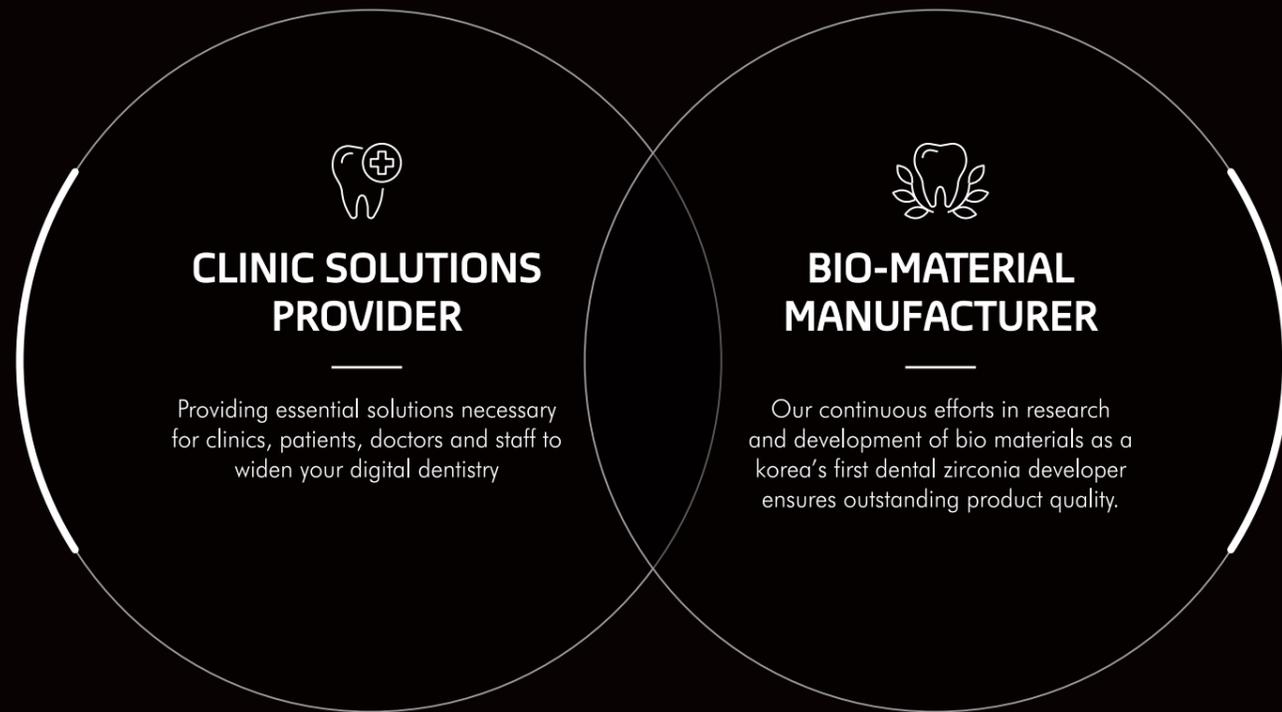
**Website.** [en.vatechmcis.com](http://en.vatechmcis.com)

**vatech**

# Material & Clinic Integrated Solutions

Vatech MCIS, a subsidiary of Vatech Networks, has been always dominating a Korean market in the field of dental X-ray for about 20 years. More than 11,000 dental clinics in Korea use our imaging device. Vatech MCIS is now expanding its business scope to concentrate on total CAD/CAM system especially on zirconia materials. Based on our accumulated R&D experiences, we will continue to develop as a professional zirconia manufacturing enterprise.

## Corporate Identity



### 1. DECADES OF R&D

The first Korean manufacturer of zirconia in dental use with more than 20 years of manufacturing history.

### 2. STABLE POWDER QUALITY CONTROL

Perfit is born through strict quality control system. It leads less crack and chipping during mill-process.

### 3. ABUNDANT RESEARCH EXPERIENCES

84 Publications listed in SCI, 9 international patents, certificated by CE, ISO 9001, ISO 13485, FDA

### 4. CIP MANUFACTURING TECHNOLOGY

Optimize workflow and enhance the accuracy through the introduction of the automated pressing system





# Perfit ZR™

Perfit ZR UT

Perfit ZR ST

Perfit ZR HT

White/Preshade

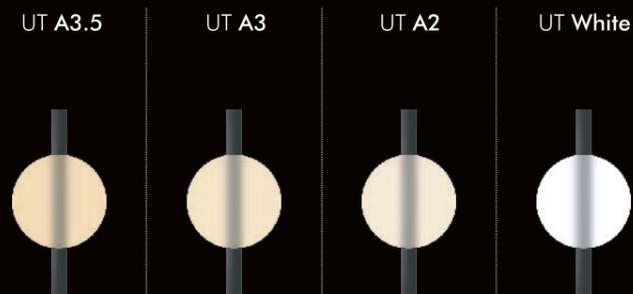
Perfit ZR TSML

Perfit ZR STML

Multilayer

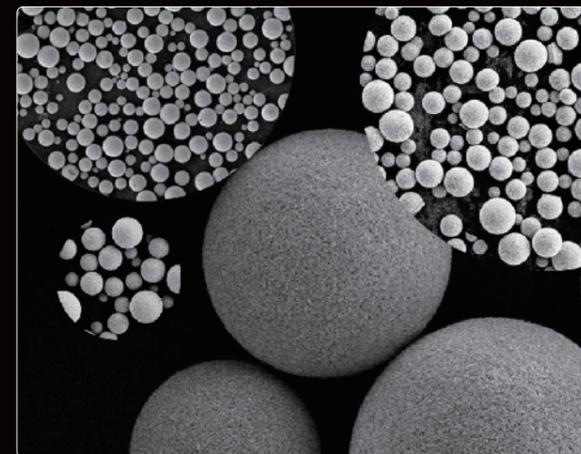
## 1. EXCELLENT TRANSLUCENCY

50% Perfit ZR UT (1 mm thickness)



Perfit ZR shows excellent translucency and high quality chroma development by analyzing the spectrum of transmitted light, considering how much light is transmitted, when the restoration is mounted inside of the mouth compared to when it is outside of the mouth.

## 2. TOP QUALITY ZIRCONIA DISC



1 By controlling pore generation inside and homogenization of particle distribution, surface stability is high.

2 Thanks to surface stability, there is no nano crack or chipping.

## 3. PERFECT COLOR REPRODUCTION

### Simple Process

Perfit color that fits to VITA shade guide makes simple coloring

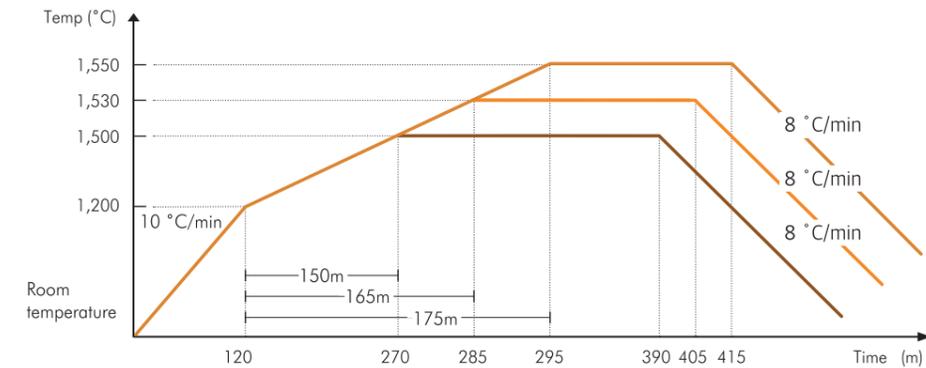


Perfit ZR reproduces the color closest to the VITA Shade. Therefore, no complicated coloring is required after processing, and an enamel-like shade can be sufficiently expressed with less coloring work. This makes it easy and quick to work even for beginners who are lack of coloring techniques or experience.

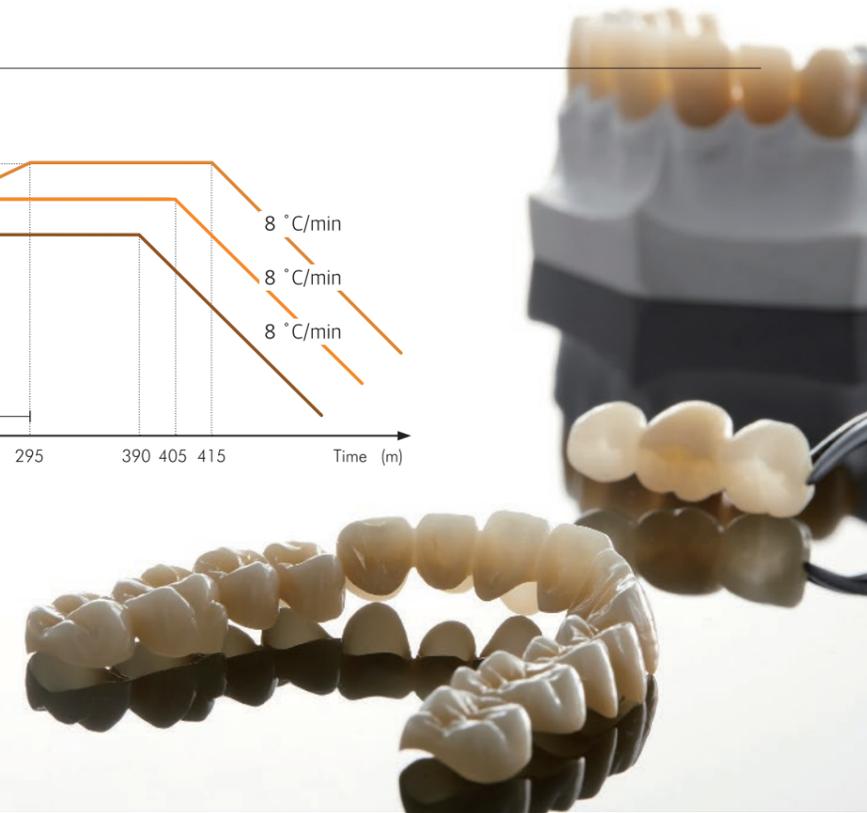
# Product Line Up

Category	Multilayer		White / Preshade		
	Perfit ZR TS-ML	Perfit ZR ST-ML	Perfit ZR UT	Perfit ZR ST	Perfit ZR HT
Products	Perfit ZR TS-ML	Perfit ZR ST-ML	Perfit ZR UT	Perfit ZR ST	Perfit ZR HT
Image					
Materials	5Y-TZP / 4Y-TZP	4Y-TZP	5Y-TZP	4Y-TZP	3Y-TZP
Translucency	46 - 50%	46%	50%	46%	42%
Strength	800 - 1,100 MPa	1,100 MPa	800 MPa	1,100 MPa	1,300 MPa
Shade	In VITA 16 Classical Guide BL1, BL3	In VITA 16 Classical Guide	In VITA 16 Classical Guide	In VITA 16 Classical Guide	In VITA 16 Classical Guide
Indication	Monolithic Crown (Anterior/Posterior), Monolithic Bridge (Anterior, up to 3 units)	Monolithic Crown (Anterior/Posterior), Monolithic Bridge, Framework	Monolithic Crown (Anterior), Veneer, Inlay/Onlay	Monolithic Crown (Anterior/Posterior), Monolithic Bridge, Framework	Monolithic Crown (Posterior), Monolithic Bridge (Posterior), Framework, Coping
Key Features	Excellent translucency on incisal, High strength on cervical. (used 2 different materials)	5+4 Seamless multilayer with natural gradation color.	High translucency applicable to Anterior, Inlay/Onlay and Veneer.	Excellent translucency and high Strength applicable both Posterior and Anterior.	Suitable for minimally prepared case
Sizes(mm)	14, 18, 22, 25	14, 18, 22, 25	14, 18, 22, 25	14, 18, 22, 25	14, 18, 22, 25

# Sintering Schedule



- HT : 1,550 (°C), dwell for 2-hr
- ST, STML, TSML : 1,530 (°C), dwell for 2-hr
- UT : 1,500 (°C), dwell for 2-hr



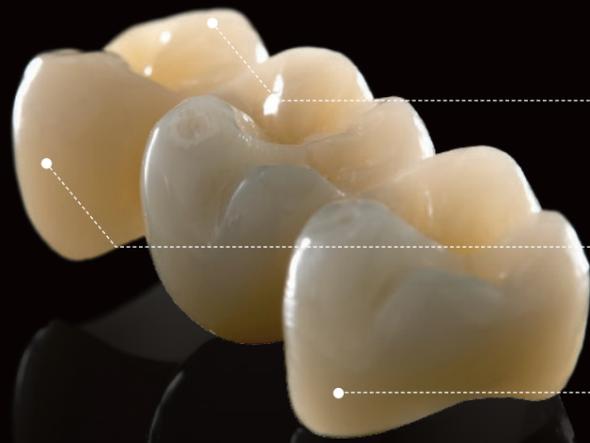
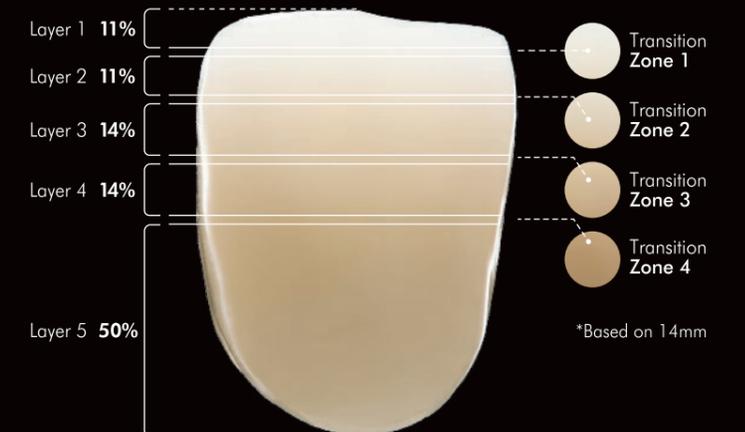
# Multilayer ZR

The last solution “Perfit ZR TS-ML”

Perfit ZR TSML is made out of “4Y-TZP” and “5Y-TZP”. This structure creates natural teeth with high translucency on the incisal and strength on the cervical. Vatech MCIS is leading its trendy zirconia and it will be a good choice of no regret.

## “9 Layered structures” creates ultimate naturalness

Perfit ZR’ is 5+4 seamless multilayer with natural gradation color. There are 5 main layers on the surface and 4 transition zones connects between the main layers smoothly.

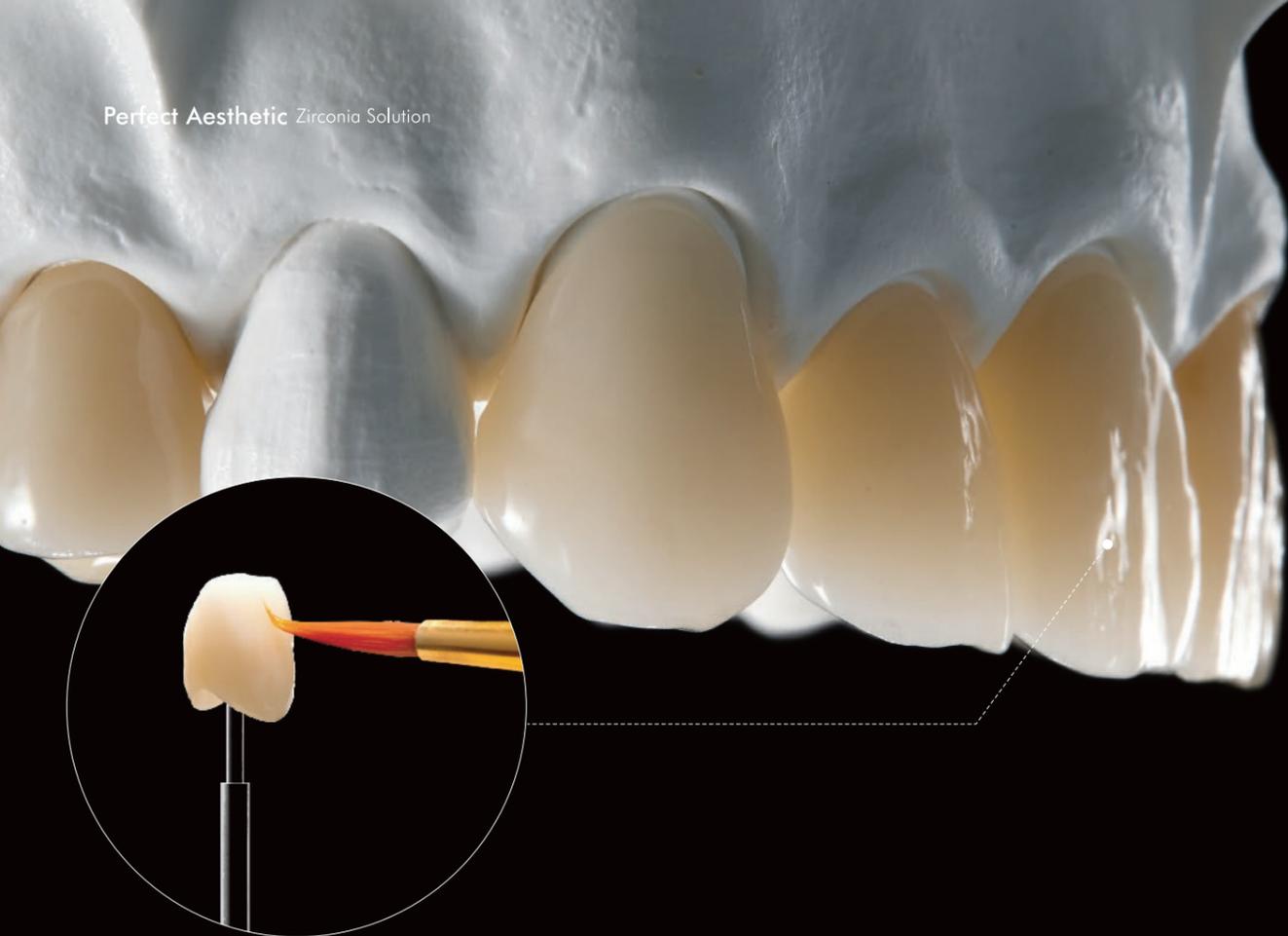


**800 MPa** 11% incisal zone  
5Y - TZP

39% transition zone (3 - layer)  
4Y & 5Y - TZP

**1,100 MPa** 50% dentin zone  
4Y - TZP





**Clinical Case**



**Voice of Customer**

“Applied body liquid once and grey liquid on the incisal to express from A2 to A3.5 than I customized crack of old teeth with stain. Perfit ZR’s translucency and chroma are excellent on the incisal and the cervical. Also, the time is very important in the lab and Perfit ZR is able to save time for coloring.”

“Coloring was done according to Vatech MCIS’s coloring guide. The result was good, and a patient was satisfied. I have plan to open a dental lab soon, so I want to do business with vatech mcis once opened.”

“I created anterior bridges in an orthodontic case. A patient required smaller crowns than her previous natural teeth. Although the room was not enough, Perfit ZR’s strength is good and shade was excellent.”

“When I compare to other manufacturers, others are little bit opaque color. However, Perfit ZR TSML’s transition zone is excellent as its’ 9 layered structures so it able to create amazing natural teeth color.”

“There is no layer line with nice gradation shade in Perfit ZR TSML and translucency on the incisal is amazing! I tried using c-clamp and a disc didn’t have any crack!”

“Considering the posterior and opposing teeth, natural anterior is created. Perfit ZR is not required build up as excellent translucency and shade.”

**Key Feature**

- Excellent compatibility with different types of zirconia.
- If mixed two liquid, make an intermediate colors.
- To adjust the less chroma, add water.
- Liquids absorb well on the surface of zirconia.

**Body Liquid**

Coloring liquids that express dentin on body

**Product Line-up** - 16ea, 50ml / bottle

(A class – 5ea / B class – 4ea / C class – 4ea / D class – 3ea)



**Effect Liquid**

<b>Brown</b>	Apply to occlusal, molar-cusp, incisor, cervical root
<b>White</b>	Apply it for transparent enamel
<b>Blue</b>	Apply it for transparent enamel(opal)
<b>Grey</b>	Apply it to enamel parts for lower brightness
<b>Dark Grey</b>	Same as above but, higher concentration
<b>Orange</b>	Apply it to the fossa

<b>Pink</b>	Apply it for gingival parts
<b>Pink+</b>	Same as above but, higher concentration
<b>Violet</b>	Apply it to marginal ridge and light white line for higher brightness
<b>Snow Light</b>	Apply it to inside slightly for block out metal shade. (If applied too much, the inside of crowns can be distorted)
<b>Snow</b>	Use for expressing opaque color

# Perfit FS™

WORLD'S FIRST MACHINABLE FULLY SINTERED ZIRCONIA BLOCK

Flexural strength	>500MPa (3-point bending test)
Translucency	>44% (1.0 mm thickness, by spectrophotometer)



## Shade Blocks

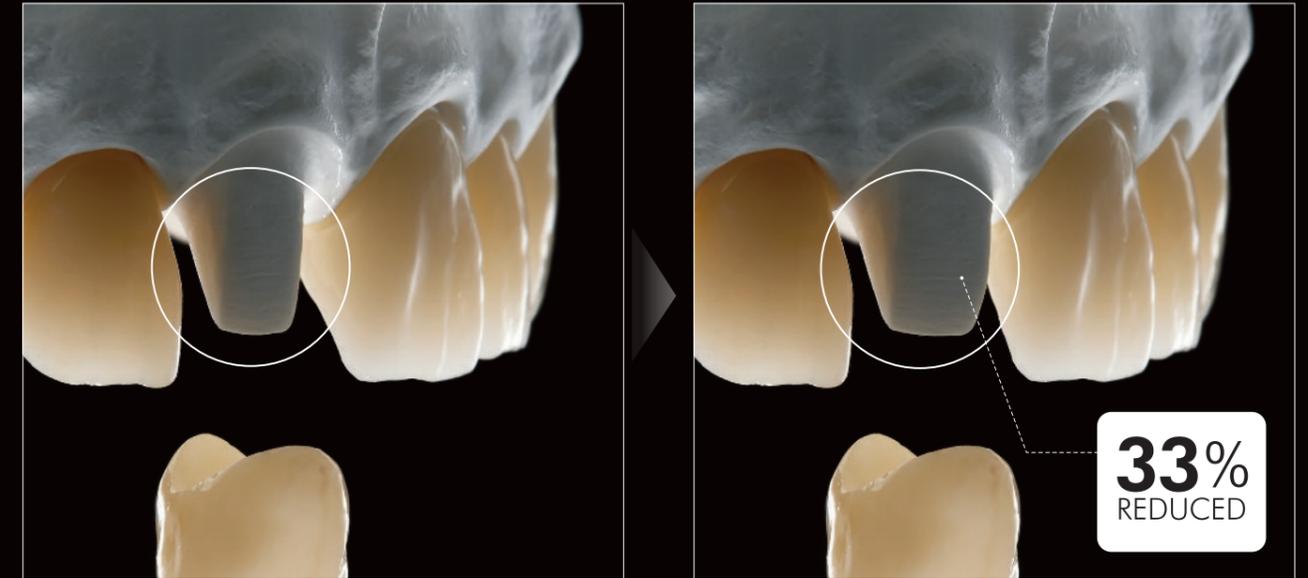
Shade In VITA 16 Classical Guide  
Size I12 / C14 / C16 / B32

## Multilayered Blocks

Shade In VITA 16 Classical Guide  
Size C14 / C16 / B32

# Perfit FS can be thinner than other materials

High strength enables **33% reduced** tooth preparation compared to other glass ceramics



Glass Ceramics ( ZLS<sup>1)</sup>, Ls<sup>2)</sup> )

Perfit FS (ZrO<sub>2</sub>)

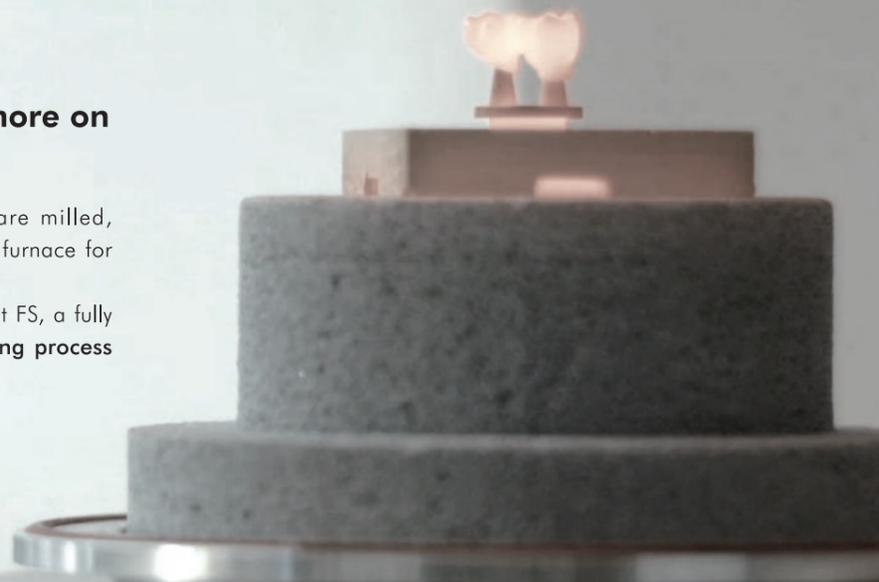
1) Zirconia reinforced lithium disilicate  
2) Lithium disilicate

# No Oven Needed

Save the chair time and focus more on your patients.

In general, after the lithium disilicate types are milled, firing process must be required in the porcelain furnace for approximately 20 to 30 minutes.

It is called as crystallization process However, Perfit FS, a fully sintered zirconia block, **needs no additional firing process after milling.**



# Wide Indication and Cost Effective

Perfit FS can be milled thinner than other glass ceramics, so it needs 33% less tooth preparation having wide indications.

Experience the cost effective and long lasting solution. Perfit FS's reliable strength provides less risk of fracture during fabrication or use.

We ensure both customer's and clinic's satisfaction by providing the best products, while constantly challenging ourselves through continuous innovation.

