

Perfit™

Perfect Aesthetic Zirconia Solution

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



Perfit



Vol. **01**

vatech

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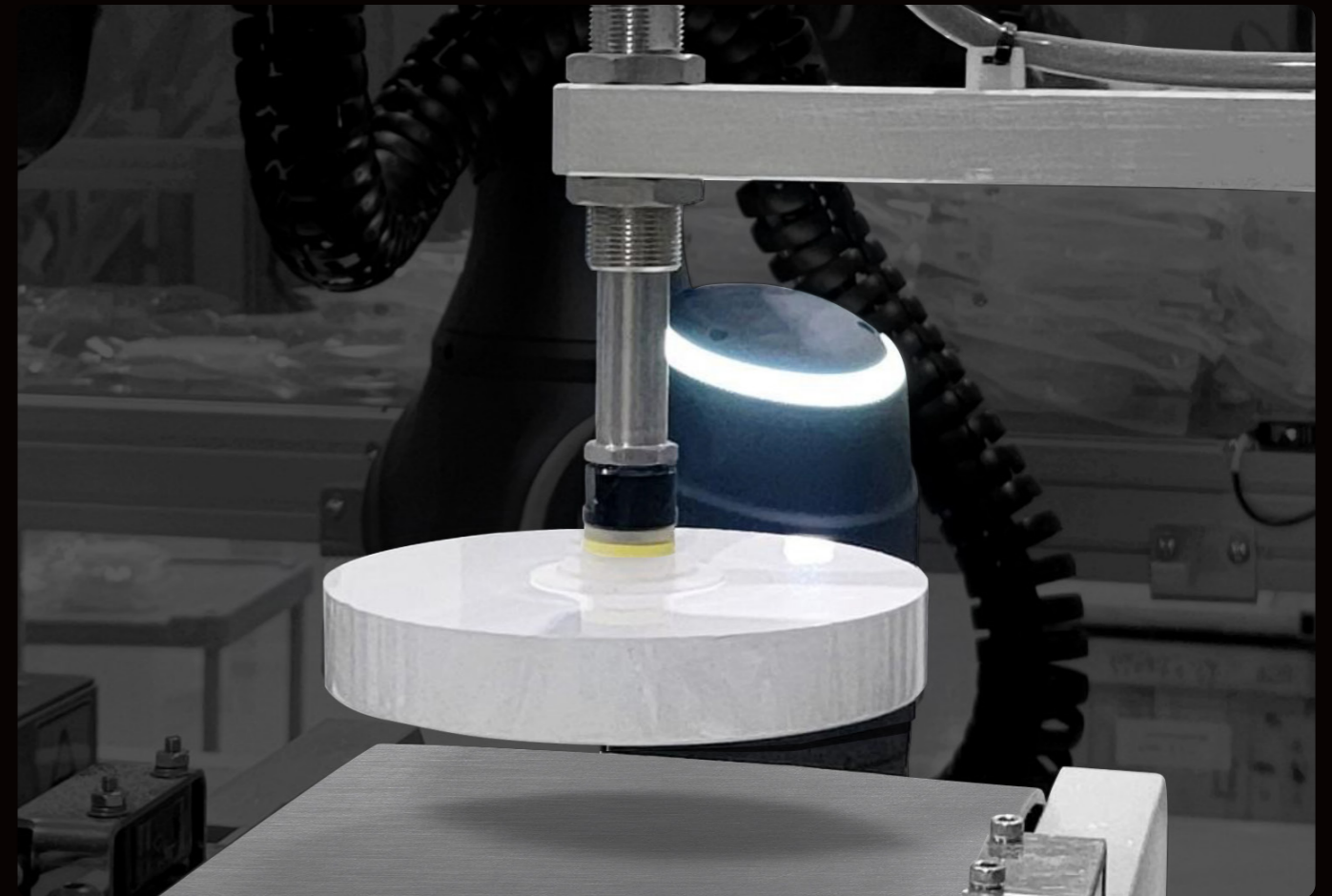
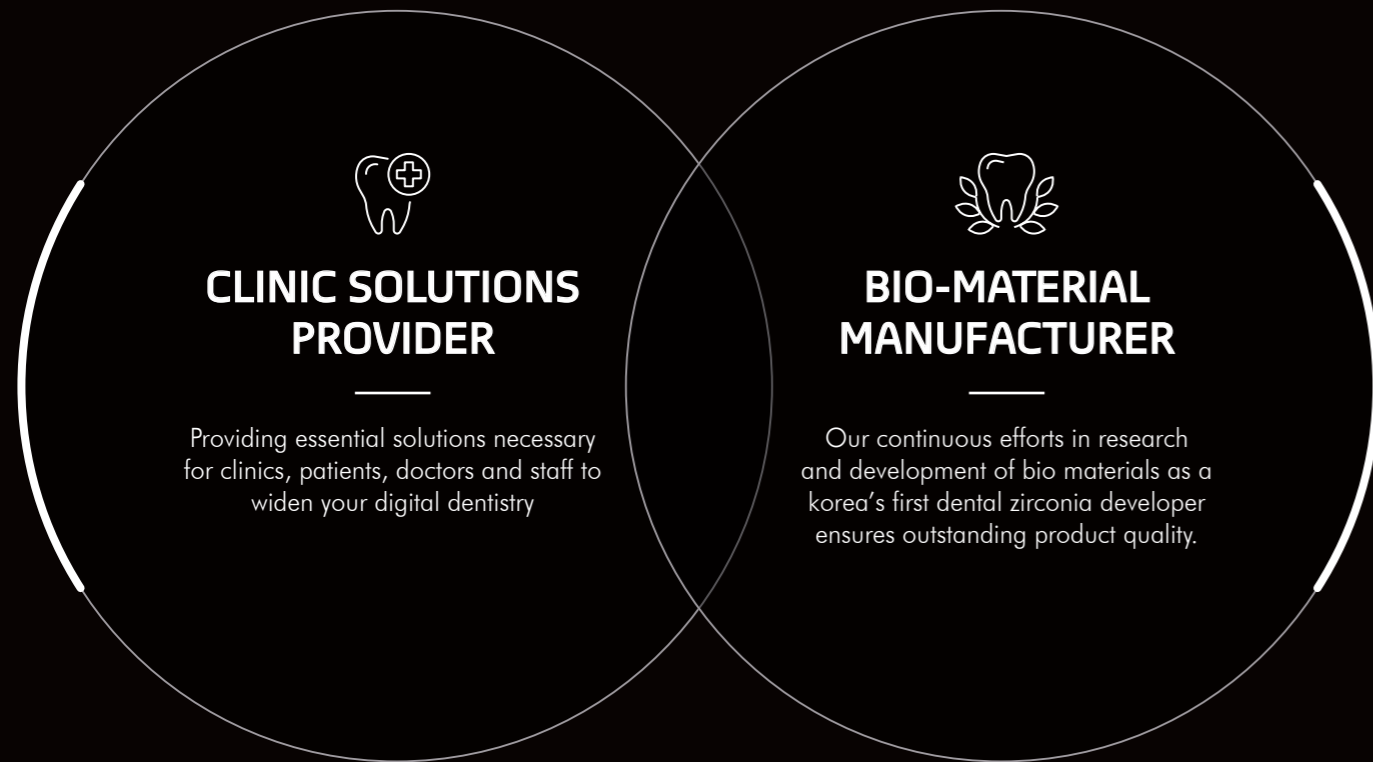
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vatech

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

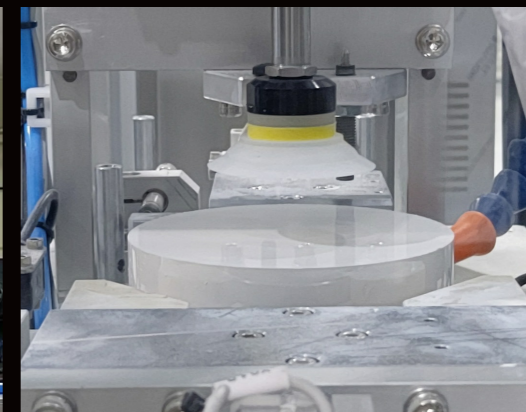
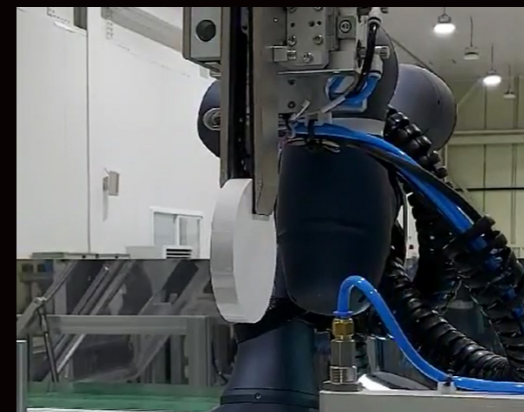
Perfit is born through strict quality control system. It leads less crack and chipping during mill-process.

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

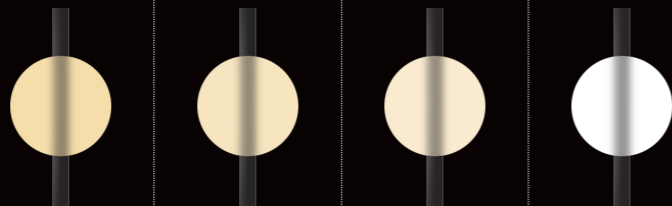
50% Perfit ZR UT (1 mm thickness)

UT A3.5

UT A3

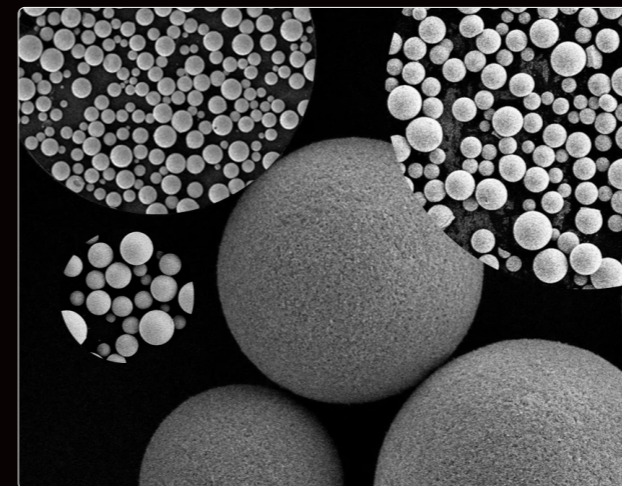
UT A2

UT White



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



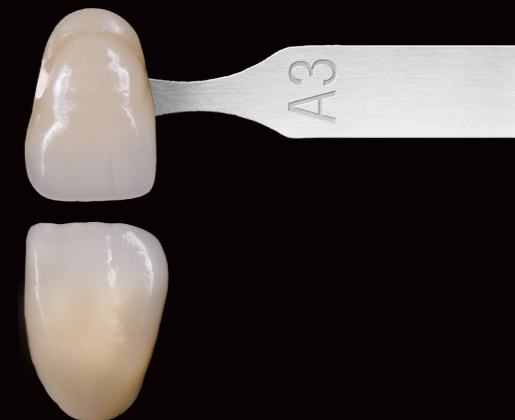
1 By controlling pore generation inside and homogenization of particle distribution, surface stability is high.

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

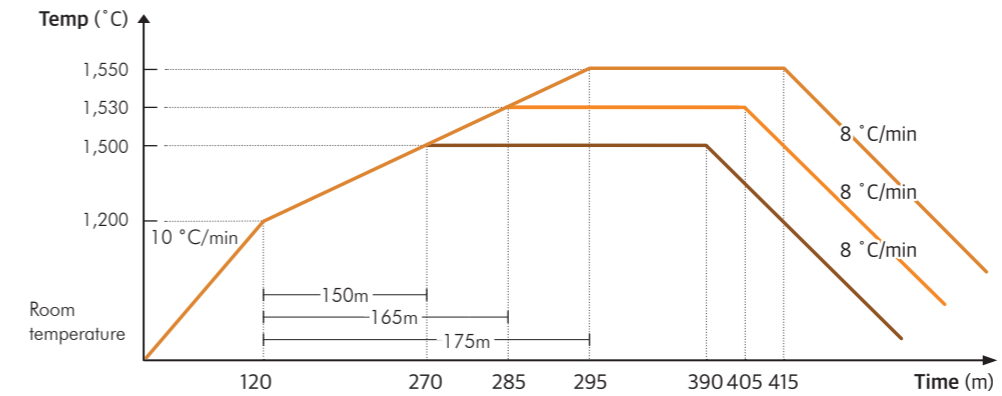


Perfit ZR reproduces the color closest to the VITA Shade. Therefore, no complicated coloring is required after processing, and an enamel-like shade can be sufficiently expressed with less coloring work. This makes it easy and quick to work even for beginners who are lack of coloring techniques or experience.

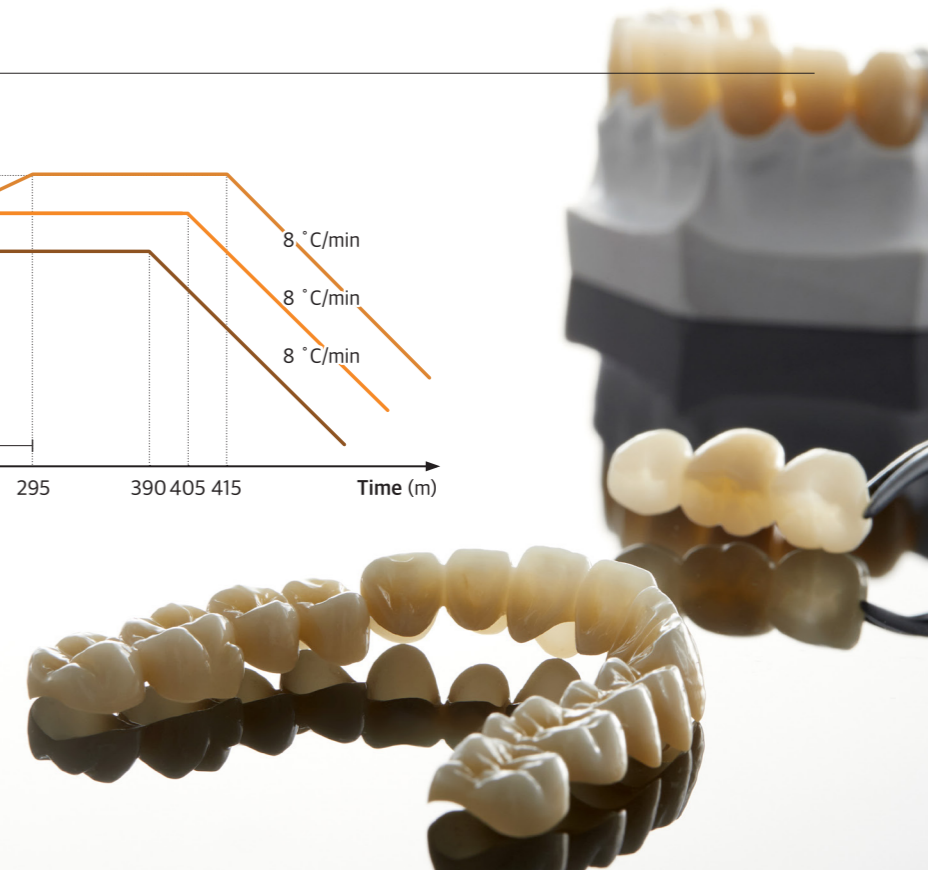
Product Line Up

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	In VITA 16 Classical Guide	In VITA 16 Classical Guide	In VITA 16 Classical Guide	In VITA 16 Classical Guide
Indication	Single crown (Anterior, Posterior), Full contour anterior bridge (up to 3 units)	Single crown (Anterior, Posterior), Full contour posterior bridge (up to 3 units), Screw-retained crown, Reduced bridge (up to 3 units)	Single crown (Anterior, Posterior), Veneer, Inlay / Onlay	Single crown (Anterior, Posterior), Full contour posterior bridge (up to 3 units), Screw-retained crown, Reduced bridge (up to 3 units)	Single crown (Posterior), Full contour posterior bridge (up to 3 units), Screw-retained crown, Multi-unit frameworks 2 pontics, 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



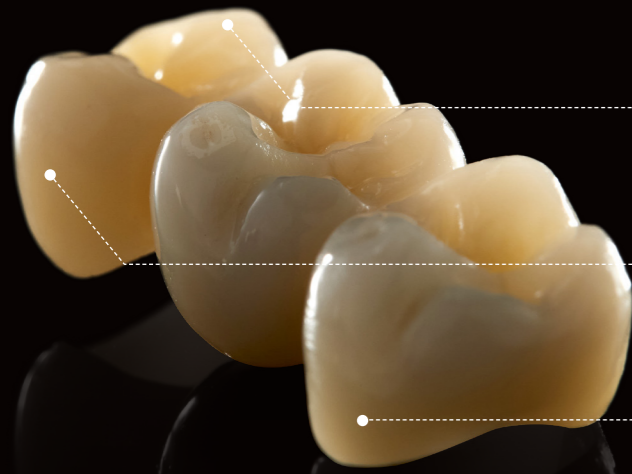
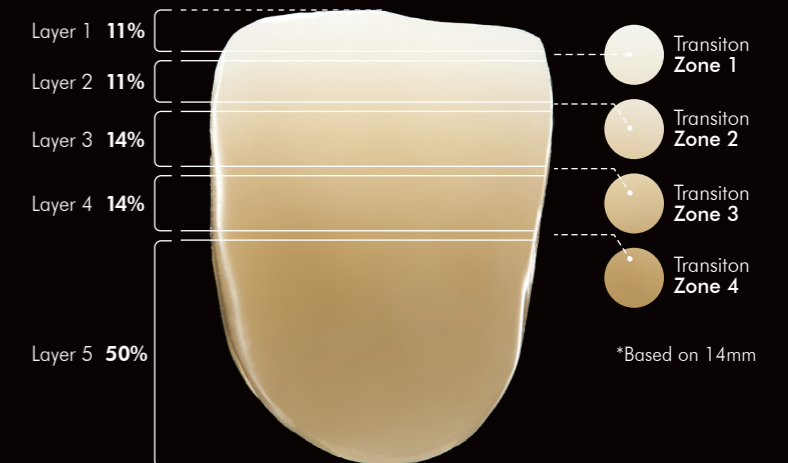
Multilayer ZR

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.

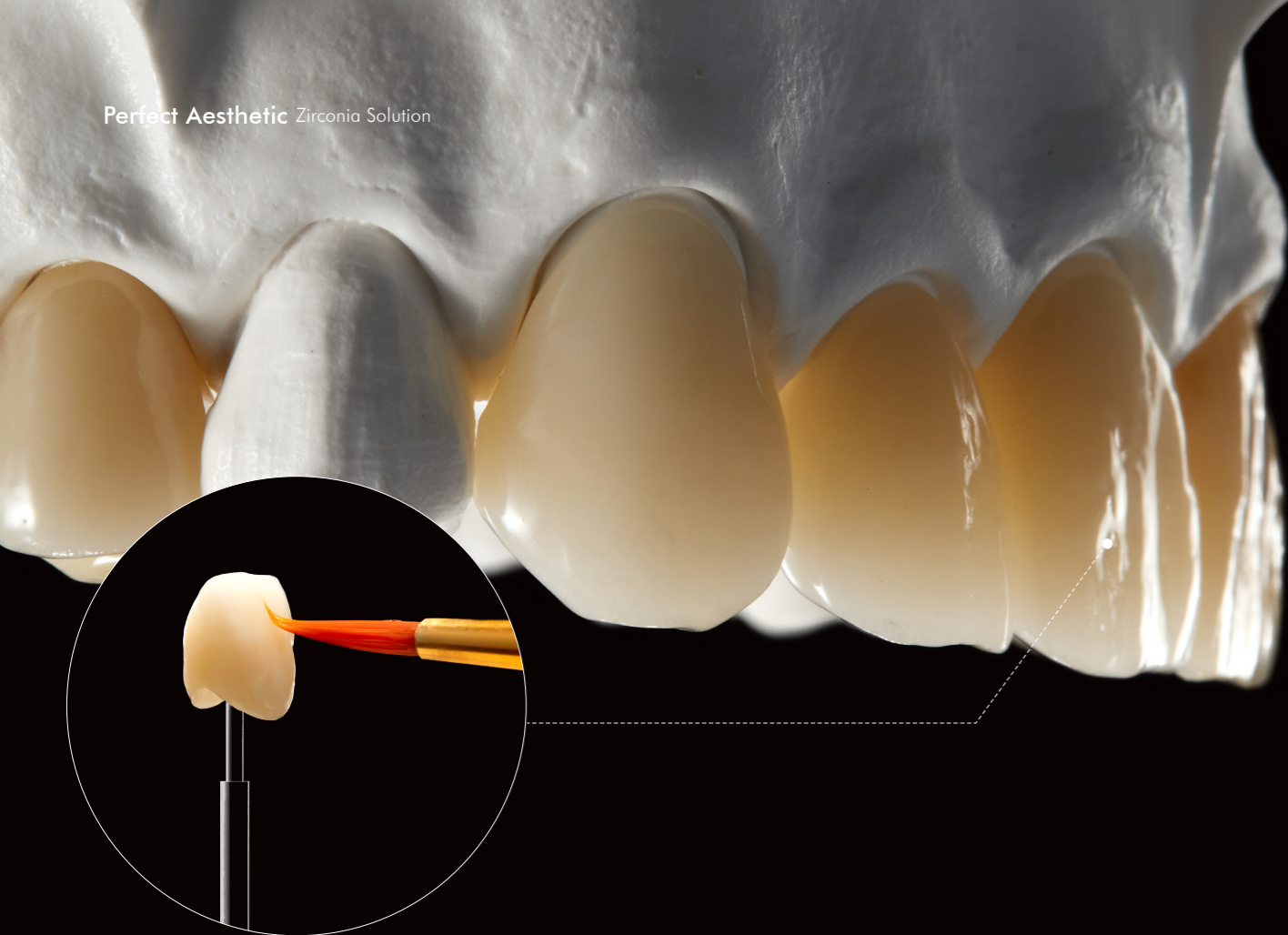


800 MPa 11% incisal zone
5Y - TZP

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

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





Clinical Case



"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!"

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."

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

Key Feature

- No acid in the liquid, therefore it is less pollution inside of sintering furnace.
- If mixed two liquid, make an intermediate colors.
- To adjust the less chroma, add water.
- Liquids absorb well on the surface of zirconia.
- Excellent compatibility with different types 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

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

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



White / Shade Blocks

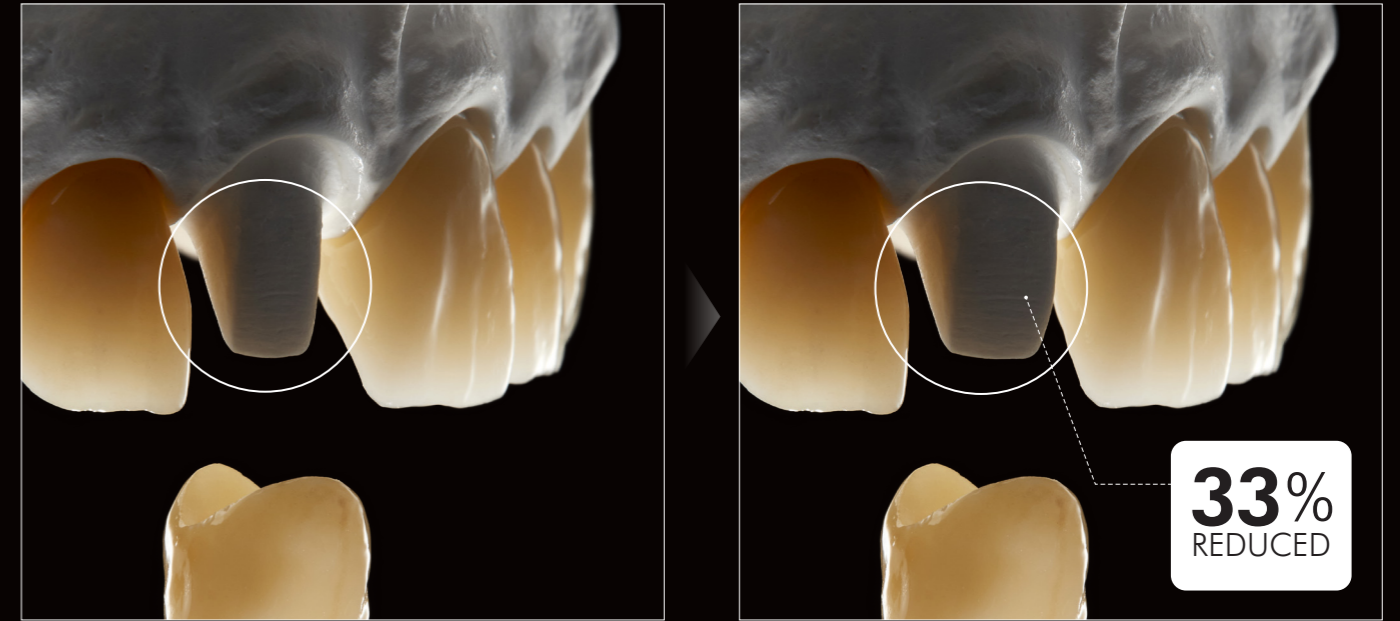
Shade In VITA 16 Classical Guide
Size I12 / C14 / C16 / B32

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 (ZLS¹⁾, Ls²⁾)

Perfit FS (ZrO2)

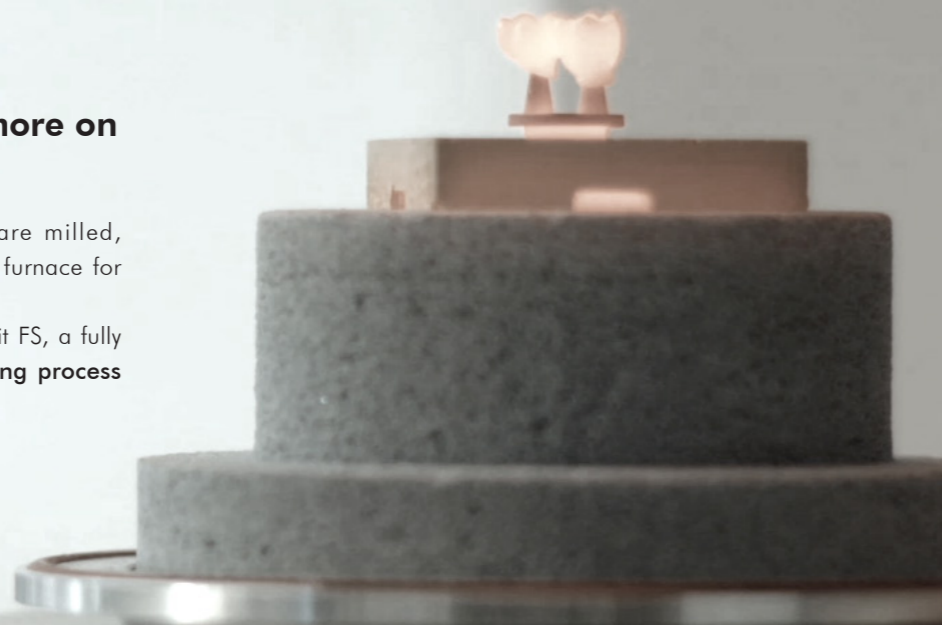
1) Zirconia reinforced lithium disilicate
2) Lithium disilicate

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.

