Perfit ZR

User Manual

vatech

Vol. 02

Index

01.

Perfit ZR

Perfit ZR is partially sintered zirconia disc that features Innovative Sintering Technology(IST) to optimize machinability of the discs, isotropic shrinkage during final sintering, and physical properties including flexural strength, translucency, and shades.

We are confident that Perfit ZR will meet your unique requirements.

Specification

Category	White / Preshade			Multilayer	
Products	Perfit ZR UT	Perfit ZR ST	Perfit ZR HT	Perfit ZR TSML	Perfit ZR STML
Image					
Materials	5Y-TZP	4Y-TZP	3Y-TZP	5Y-TZP / 4Y-TZP	4Y-TZP
Translucency	50%	46%	42%	46 ~ 50%	46%
Strength	800 MPa	1,100 MPa	1,300 MPa	800 ~ 1,100 MPa	1,100 MPa
Shade	VITA Classical 16 shades	VITA Classical 16 shades	VITA Classical 16 shades	VITA Classical 16 shades, BL1, BL3	VITA Classical 16 shades
Indication	Monolithic Crown (Anterior), Veneer, Inlay/Onlay	Monolithic Crown (Anterior/Posterior), Monolithic Bridge, Framework	Monolithic Crown (Posterior), Monolithic Bridge (Posterior), Framework, Coping	Monolithic Crown (Anterior/Posterior), Monolithic Bridge (Anterior, up to 3 units)	Monolithic Crown (Anterior/Posterior), Monolithic Bridge, Framework
Thickness(mm)	14, 18, 22, 25				

02.

Perfit CL

Perfit CL, developed through analysis of absorption and spectrum of transmitted light, composes of 16 Body Liquids based on VITA Shade guide and 11 Effect Liquids that can adjust chroma in cervical, proximal and body area.
The liquids are compatible to the zirconia restorations prepared using other manufacturer's discs.

1. Be sure to use an dipping liquid for white discs and dry them properly.
2. Please follow the sintering temperature of Perfit ZR.
3. Learn to develop personal skills for coloring based on the coloring liquid manufacturer's guide.

Body Liquid

(50ml)
(Brush Type / Dipping Type)

We provide 16 body liquids that can reproduce basic dentin color.

A class	B class	C class	D class
A1, A2, A3, A3.5, A4	B1, B2, B3, B4	C1, C2, C3, C4	D2, D3, D4

Effect Liquid

(20ml)

Effect liquids are able to express unique characteristics of the patient's own teeth.
It is available to show translucency, brightness, chroma, crack, opal, opaque, gingival color etc.

Violet
Use for expressing translucency on the incisal.

Blue
Use for expressing translucency and opal on young people.

Gray
Use for lower the brightness and expressing the enamel.

Dark Gray
Use for expressing deep translucency of the end of incisal.

Orange
Use for expressing wearing, yellow and high chroma.

Snow
Use for expressing opaque color.

Snow Light
Use for expressing opaque color and crack line on the incisal.

Brown
Use for fossa, Embraser, wear, Cervical.

White
Use for expressing line angle and lower brightness on the incisal.

Pink
Use for raising brightness of dentin and expressing gingival.

Pink+
Same as pink function but It's bit deeper.

01. Technical Data (Properties)

Perfit ZR discs can be milled into dental restorations using various CAD / CAM or manual milling machines.

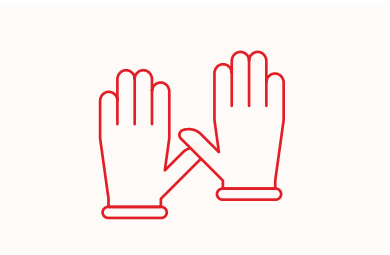
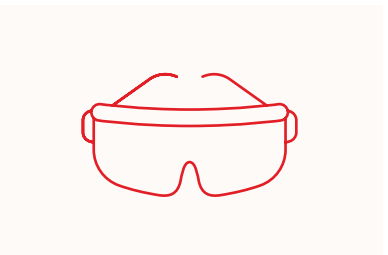
	Perfit ZR UT	Perfit ZR ST	Perfit ZR HT	Perfit ZR STML	Perfit ZR TSML
Type/Class (ISO 6872)	2/4(b)	2/4(b)	2/5	2/4(b)	2/4(b)
Flexural Strength (MPa)	800	1,100	1,300	1,100	800~1,100
Translucency (%)	50	46	42	46	46~50
Materials	5Y-TZP	4Y-TZP	3Y-TZP	4Y-TZP	4Y/5Y-TZP

02. General Instruction

- All Discs should be processed by dental professionals.
- Inspect the product for any damage.
- Confirm thickness and shade of disc for its intended use.
- Avoid exposure to foreign particles or liquids.
- Ensure that the disc is placed in the original packaging box under dry conditions.

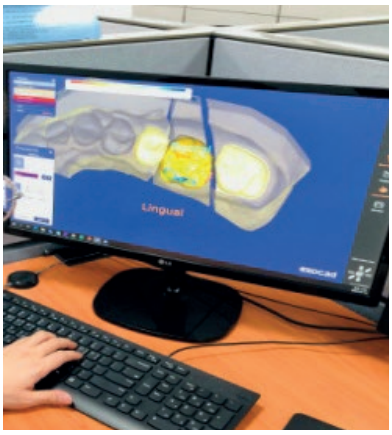
03. Safety Information

We understand and respect the importance of safe procedures when handling coloring liquids.
Please refer to the following guide to ensure your own safety.

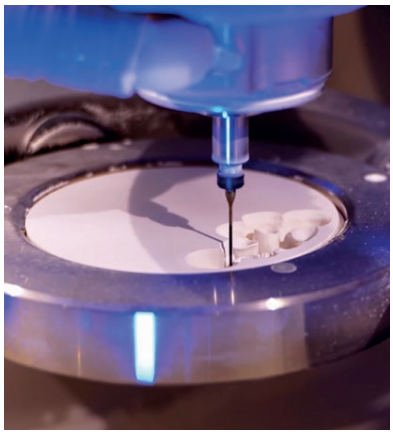




Please wear a face mask, gloves and safety glasses for your safety. These help to avoid inflammation of the skin.
Do not drink coloring liquids. Keep coloring liquids away from children.
The coloring liquid may be handled by trained or professional dental technicians.

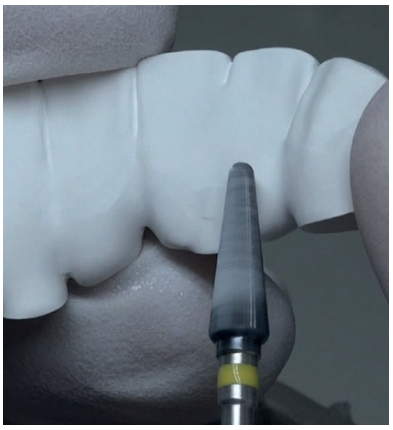
04. Workflow



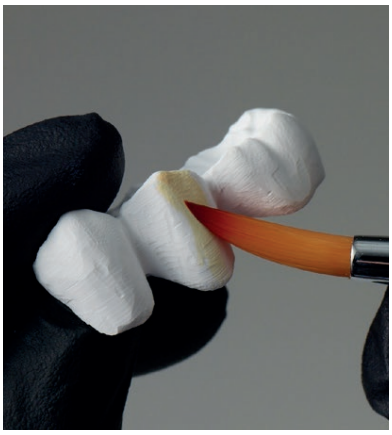
1. Design



2. Milling

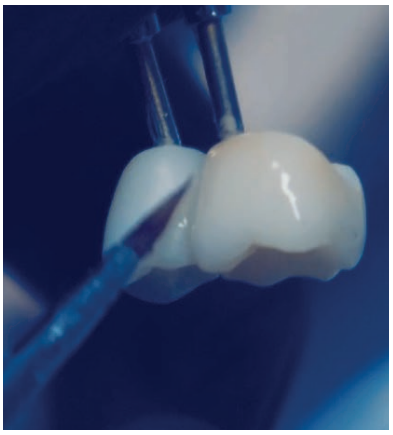


3. Contouring



4. Coloring(Optional)

5. Sintering



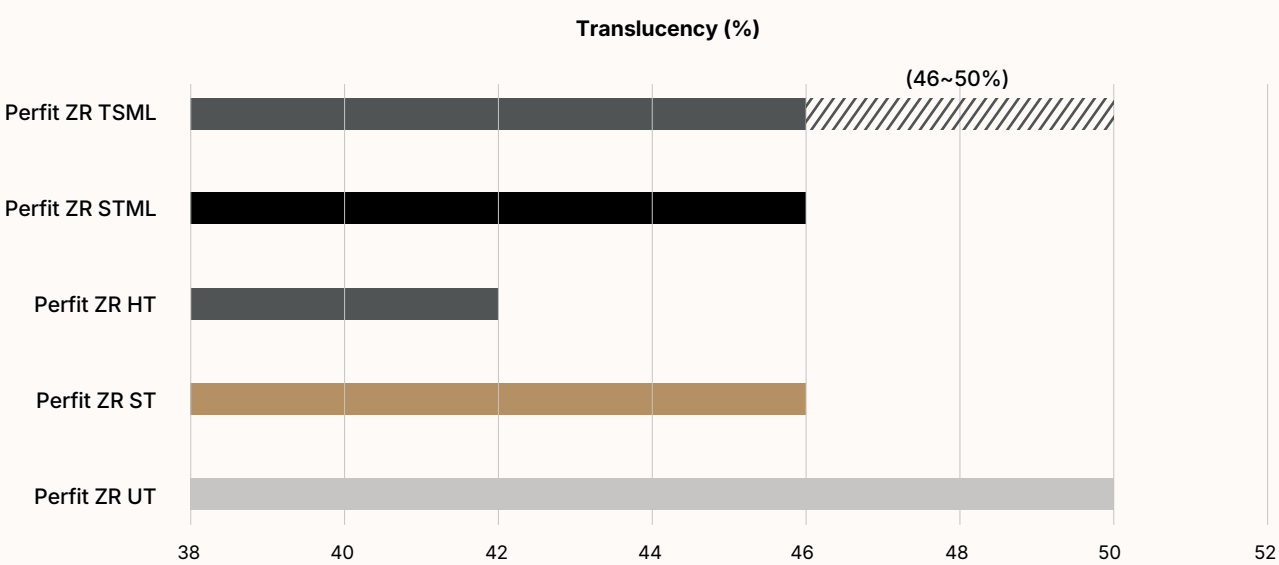
6. Glazing(Staining Optional)

7. Completion

01.

Indications for Use

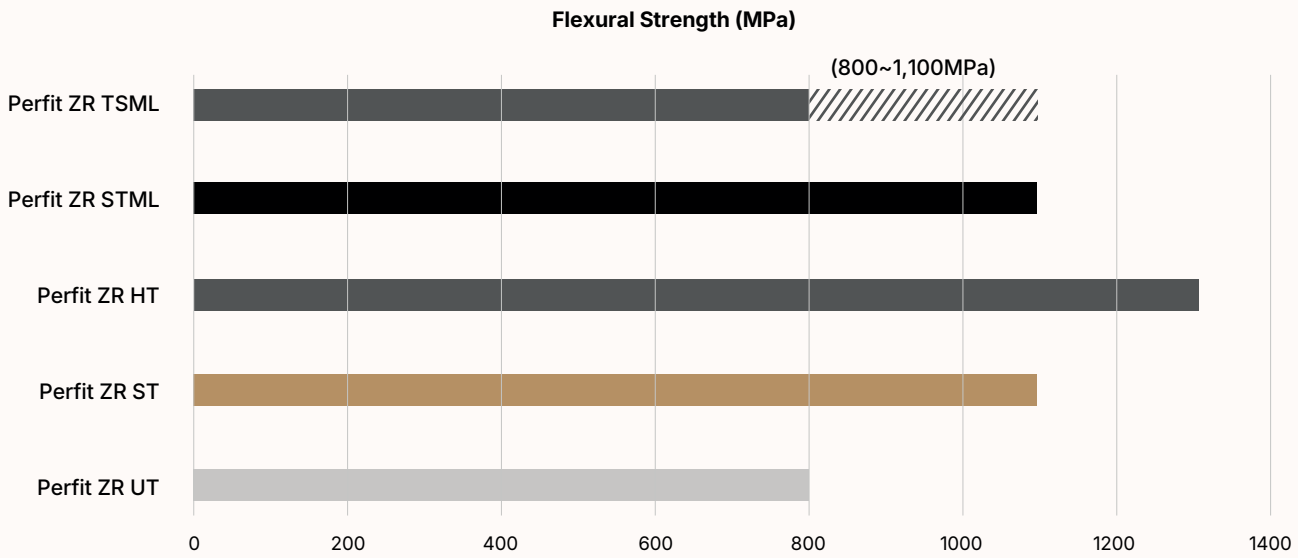
Perfit ZR has five types of discs according to their translucency and flexural strength, as shown in the graph below. Depending on its translucency and flexural strength, the disc may create restorations for Anterior to Posterior and from a single crown to a long bridge.



Sample Thickness : 1.0 mm, by Spectrophotometer

When selecting materials for anterior fabrication, translucency is considered the most.
In the Perfit ZR line-up, high translucency products, UT, ST, STML and TSML, are used.
Perfit ZR UT is a Pre-Shaded disc that has the highest translucency among Perfit line-up, so anterior, veneer, and inlay/onlay may be created from the UT.

This product may compete with PFM and Glass Ceramic as high translucency restorations.
Perfit ZR TSML is a multilayered zirconia that uses two types of materials.
It has the advantage of lifelike teeth shade on the surface, so coloring is even simpler in the anterior case.
Select materials by referring to their translucency.



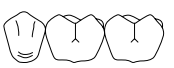
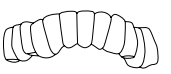
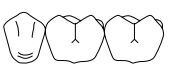
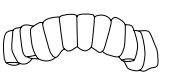
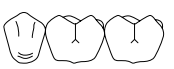
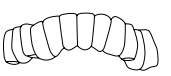
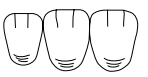
When selecting materials for posterior fabrication, flexural strength is considered the most because the occlusal force of posterior is 2.5 times higher than the anterior force.

In Perfit ZR line-up, ST, HT, STML and TSML are available for posterior restorations.
Perfit ZR HT is commonly used for long bridge, All on 4, and All on 6.
Other types of discs may be selected according to patient's specific needs.

In the case of Perfit ZR TSML, it is composed of two different types of zirconia.
Since TSML has high strength of the cervical and high translucency of the Incisal, it can also be used for premolar that requires stability and aesthetics at the same time.

Please refer to the flexural strength of the disc and the patient' specific restoration needs when making the disc selection.

The following table lists recommended indications.
Indications may be different depending on the patient's condition.
Select the product by referring to its translucency and flexural strength.

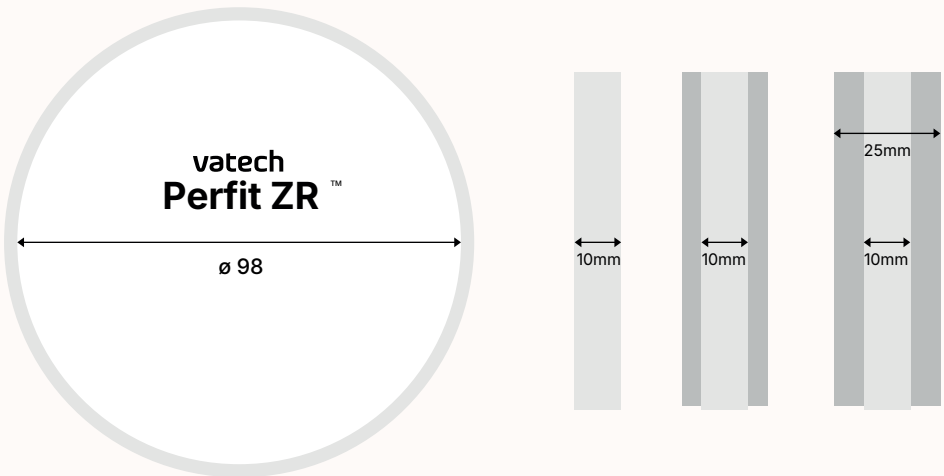
	Indications			
Perfit ZR UT	 Veneer	 Inlay / Onlay	 Monolithic Crown (Anterior)	
Perfit ZR ST	 Monolithic Crown (Anterior)	 Monolithic Crown (Posterior)	 Monolithic Bridge	 Framework
Perfit ZR HT	 Monolithic Crown (Posterior)	 Monolithic Bridge (Posterior)	 Framework	 Coping
Perfit ZR STML	 Monolithic Crown (Anterior)	 Monolithic Crown (Posterior)	 Monolithic Bridge	 Framework
Perfit ZR TSML	 Monolithic Crown (Anterior)	 Monolithic Crown (Posterior)	 Monolithic Bridge (Anterior, up to 3 units)	

02.

Disc Selection

When selecting a disc, thickness and shade must be considered.
The thickness of the disc may be selected according to its length of the crown.

GEOMETRY



Available Thickness

14, 18, 22, 25mm

Even though the chroma can be matched with coloring liquid,
A shade matching the patient's teeth recommends when selecting a disc.
Applying a coloring liquid is possible with low chroma of disc, but translucency may decrease slightly.

1. A2 Disc
2. A2 Disc → A3.5 Coloring
3. A3.5 Disc

03.

Minimum Wall Thickness /Prep Guide

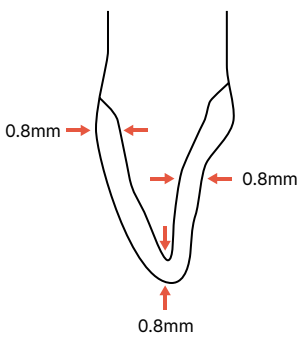
Minimum Wall Thickness is the most basic guide to ensure that crack does not occur in the patient's mouth.
In the case of an anterior, the masticatory force is not strong so the minimum wall thickness
may be relatively thin compared to the posterior.

For the bridge case, the connector dimensions should be following the guide below.
The minimum wall thickness is different depending on indications. Please refer to the picture and the table below.

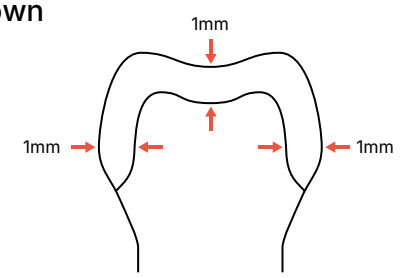
Minimum Wall Thickness

Perfit ZR UT | Perfit ZR ST | Perfit ZR STML | Perfit ZR TSML

Anterior Crown



Posterior Crown

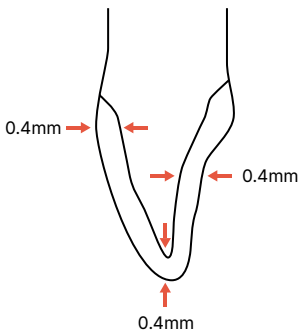


Indication	Anterior		Posterior	
	Minimum Thickness (mm)	Connector Dimensions (mm^2)	Minimum Thickness (mm)	Connector Dimensions (mm^2)
Inlay/Onlay	-	-	1.0	-
Crown	0.8	-	1.0	-
Cantilever bridges	1.0	12	1.0	12
3-unit bridge	1.0	9	1.0	9

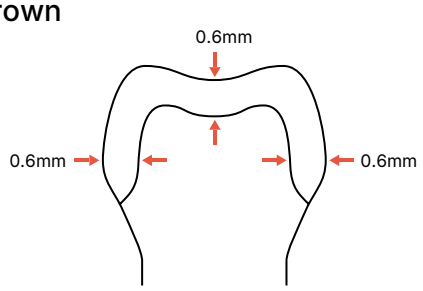
Perfit ZR HT

For Perfit ZR HT, the incisal or occlusal reduction may be reduced to 0.4 mm for anterior crowns and to 0.6 mm for posterior crowns.

Anterior Crown



Posterior Crown

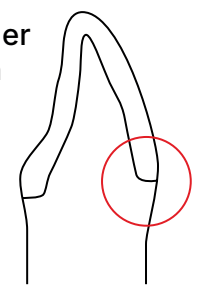


Indication	Anterior		Posterior	
	Minimum Thickness (mm)	Connector Dimensions (mm^2)	Minimum Thickness (mm)	Connector Dimensions (mm^2)
Crown	0.8	-	1.0	-

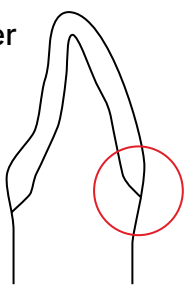
Tooth Preparation Info

To prevent problems when fitting a crown, Integrating a restoration and a tooth preparation are important.
The tooth preparation surface should not be angled and sharp. Shoulder margin, which has an internal line angle of 90° and gives sufficient space for restorations production, and chamfer margin, which has a curve slope and brings unique distribution of stress are suitable.

Shoulder Margin

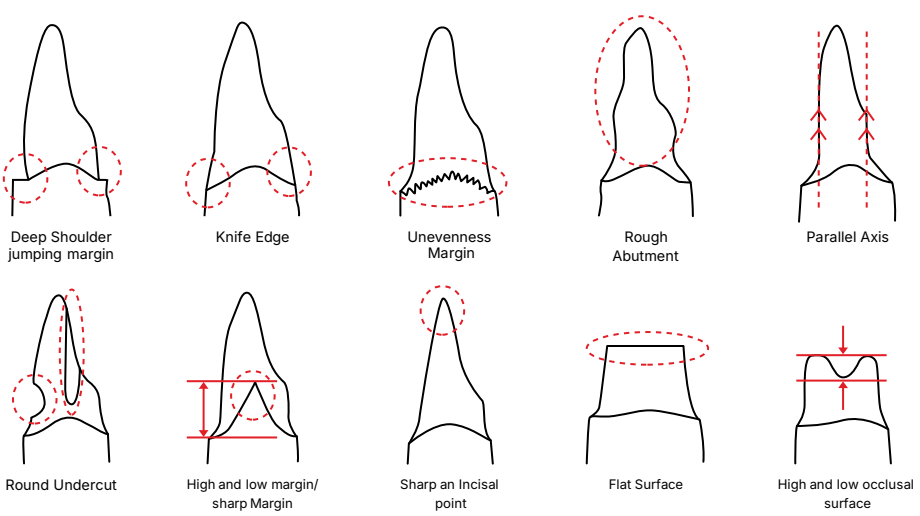


Chamfer Margin



* Contraindication

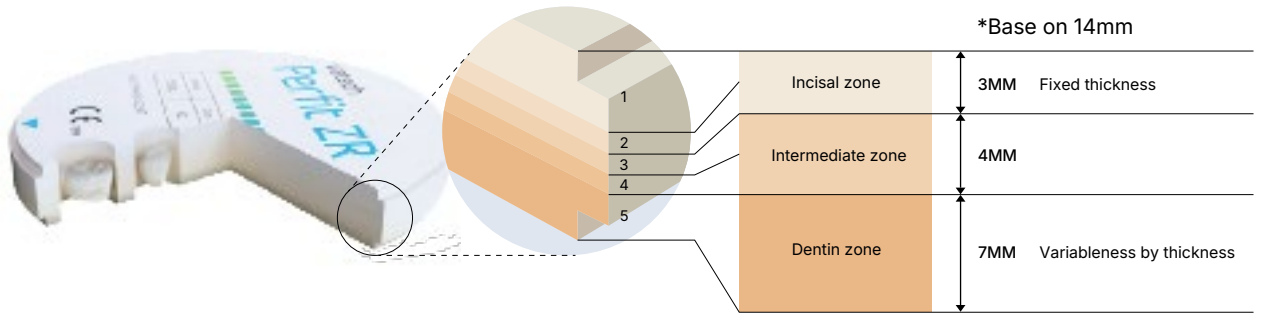
- Smooth the surface and do not form undercut.
- Complete the angle point with a curved surface, and abutment should not be sharp or angled.
- Ensure that the thickness of the dental restoration is in uniform.
- Round the line angle to avoid stress.



04.

Positioning Instruction

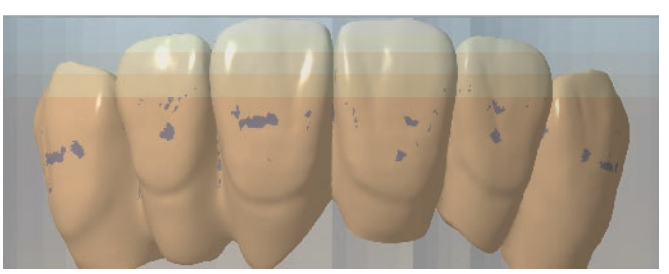
Positioning restoration for multilayered zirconia is important in order to express right shade and translucency using CAM S/W.
To express optimal translucency and shade reproductions, the heights of crown and bridges should be adjusted
in consideration of an Incisal zone, an intermediate zone, and a Dentin zone in CAM S/W.



The thickness of the Dentin Zone varies depending on the thickness of the disc,
while the Incisal Zone and Intermediate Zone is fixed.
This information should be noted when nesting.

Even if teeth of the same length are used on discs with different thicknesses,
same result could be obtained if the incisal zone and the intermediate zone are correctly fixed.

A large area of dentin zone may be required for some gingival or root work. Multilayered zirconia from some manufacturers have fixed ratio of Dentin Zone and may not express its dentin shade fully due to the lack of Dentin Zone. However, Perfit ZR multilayered zirconia does not have fixed ratio of Dentin Zone but has increasing Dentin Zone with its increasing thickness.



Perfit ZR TSML

Other Manufacturer

Shade composition

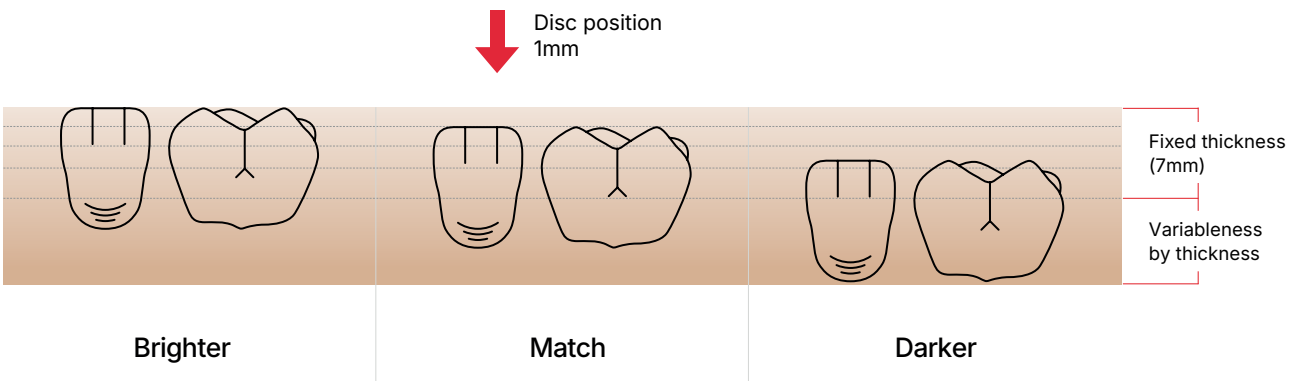
Indications		14(mm)	18(mm)	22(mm)	25(mm)
Incisal zone	Layer 1	3	3	3	3
	Layer 2				
Intermediate zone	Layer 3	2	2	2	2
	Layer 4	2	2	2	2
Dentin zone	Layer 5	7	11	15	18

Fixed thickness (7mm)

Variableness by thickness (5~18mm)

Position the disc by considering the thickness of each zone.
Please refer to the positioning of the anterior and posterior.

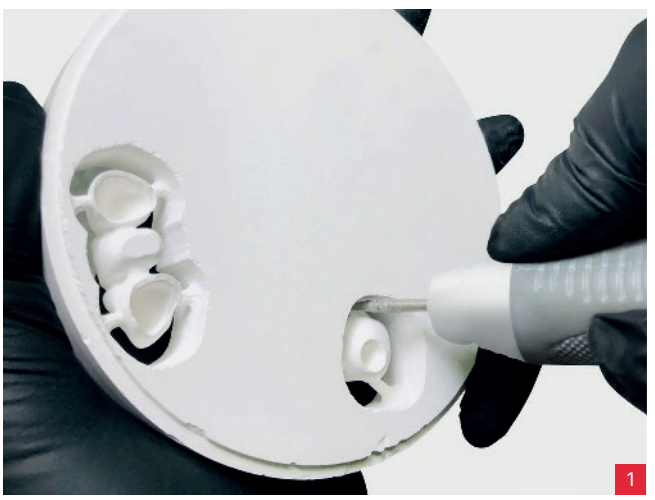
CAM Positioning

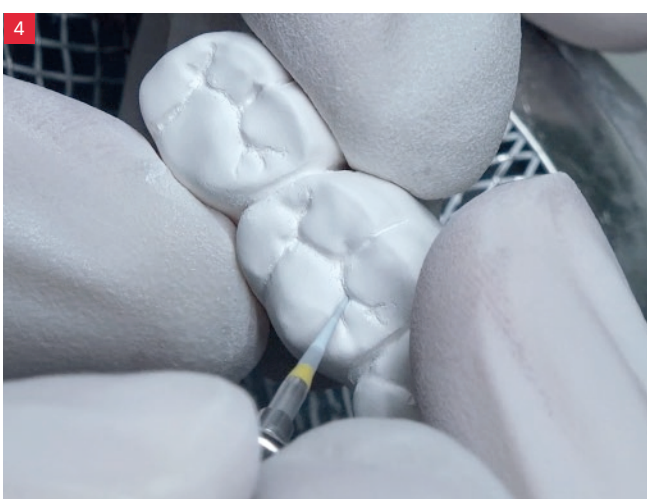


05.
Separating / Contouring

In order to prevent damage of thin area, low speed and pressure should be utilized.

Separating





1. During separating, bur should face the margin.
2. Instead of cutting only one Sprue, it should be cut in turns.
3. Use low speed and light pressure to avoid micro-cracking when using handpieces.
4. Start with fine tungsten carbide burs or diamond-coated grinding burs and finish with silicone burs.
   (Use rough burs then smooth bur when contouring.)
5. Remove the zirconia powder using compressed air. Fitting will be a problem if the powder is not removed.

Contouring

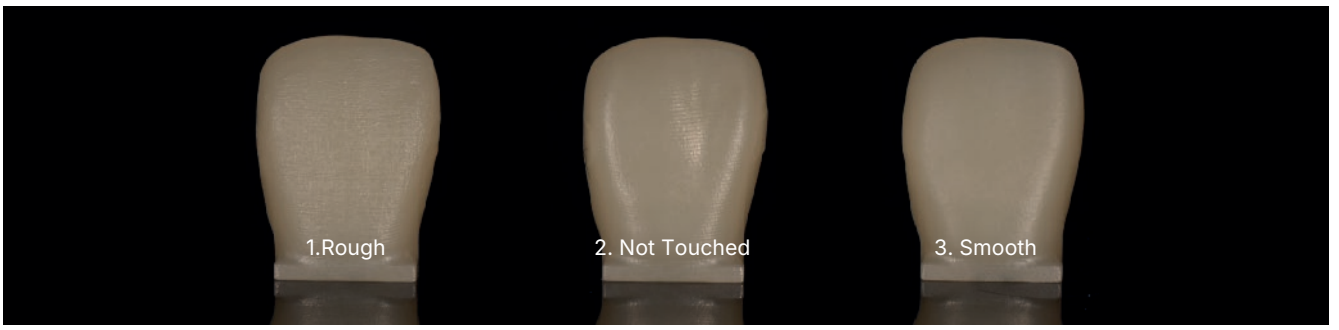
After separating connector, mark areas that are not milled due to undercut.

Remove marking area using a silicone bur.

Characterize the groove using an inverted triangular diamond bur.

Smooth out using a silicone bur.

Tidy up the surface using the wheel for zirconia.



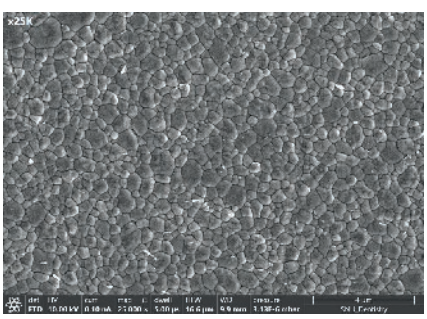
After milling, the results of chroma and brightness are different depending on the contouring method.
When the surface of crown is rough, the chroma decreases and the brightness increases. when the surface is smooth, the chroma increases and the brightness decreases.
The expression of chroma and brightness may be controlled by adjusting the surface roughness.

06. Coloring

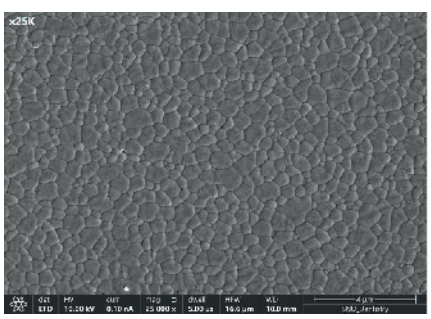
Indication

Perfit CL is do coloring using dipping and brush techniques.
It can be made use of Perfit ZR UT, ST, HT, STML, TSML, and each coloring technique is slightly different.

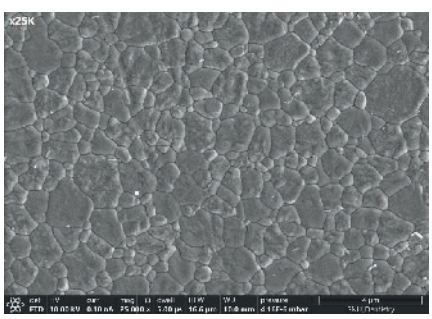
Material & Coloring



3Y-TZP



4Y-TZP



5Y-TZP

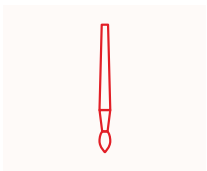
The more Yttria content increases the particle size and translucency of zirconia they bigger. The larger the particle size, the coloring liquid of high chroma should be used since different pigmentation. When the same coloring liquid is used in 3Y and 5Y discs, unlike colors may come out due to the different pigmentation of the coloring liquid. For this reason, control the volume of the coloring liquid when you use different kinds of discs.

Perfit ZR TSML is consisted of 5Y-TZP on the Incisal, 4Y/5Y-TZP on the transition zone, and 4Y-TZP for cervical.
The concentration of the coloring liquid should be adjusted depending on the layers applied.

- 3Y-TZP : Perfit ZR HT
- 4Y-TZP : Perfit ZR ST, Perfit ZR STML, Perfit ZR TSML
- 5Y-TZP : Perfit ZR UT, Perfit ZR TSML

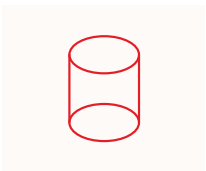
Coloring Tools

Prepared coloring tools listed below. The tools must not be made of metal.



Brush

Tweezer



Container

Tissue Paper

Drying Oven

Workflow

Brush Technique

Applying on the incisal area → Applying on the body → Drying in the oven → Sintering

Dipping Technique

Dipping Into the coloring liquid → Drying In the oven → Applying on the incisal area → Sintering

06.

Coloring

—

Brush Technique

06.

Coloring Brush Technique

Perfit ZR ST A2 → A2 : Anterior

Step 1

1 x apply Violet Liquid on the incisal area.

Labial

Lingual

Step 2

1 x apply Blue Liquid on the incisal area.

Labial

Lingual

Step 3

1 x apply A1 Liquid on a 2/3 of cervical and the inner surface.

Labial

Lingual

Inner Surface

Step 4

1 x apply Dark Gray Liquid on the incisal area.

Labial

06.

Coloring Brush Technique

Perfit ZR ST A2 → A2 : Posterior

Step 1

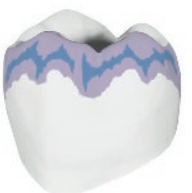
1 x apply Violet Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 2

1 x apply Blue Liquid on an incisal area and the occlusal surface.

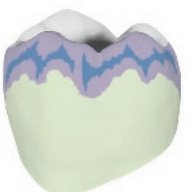


Buccal

Occlusal

Step 3

1 x apply A1 Liquid on a 2/3 of cervical, an occlusal surface and the inner surface.



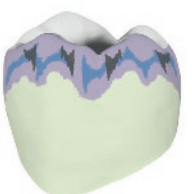
Buccal

Occlusal

Inner Surface

Step 4

1 x apply Dark Gray Liquid on the incisal area.



Buccal

Perfit ZR ST A2 → A3 : Anterior

Step 1

1 x apply Violet Liquid on the incisal area.

Labial

Lingual

Step 2

1 x apply Blue Liquid on the incisal area.

Labial

Lingual

Step 3

1 x apply A1 Liquid on the cervical 2/3.

Labial

Lingual

Step 4

1 x apply A2 Liquid on a 1/3 of cervical and the inner surface.

Labial

Lingual

Inner Surface

Step 5

1 x apply Dark Gray Liquid on the incisal area.

Labial

06.

Coloring Brush Technique

Perfit ZR ST A2 → A3 : Posterior

Step 1

1 x apply Violet Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 2

1 x apply Blue Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 3

1 x apply A1 Liquid on a 2/3 of cervical and the occlusal surface.

Buccal

Occlusal

Step 4

1 x apply A2 Liquid on a 1/3 of cervical and the inner surface.

Buccal

Inner Surface

Step 5

1 x apply Dark Gray Liquid on the incisal area.

Buccal

06.

Coloring Dipping Technique

Perfit ZR ST White → A2

Step 1

Dip the restoration into A1 Liquid for 3sec and dry for 20~30minutes on 140 °C.

Drying Oven

Step 2

1 x apply A2 Liquid on a 1/3 of cervical.

Buccal

Step 3

1 x apply Violet Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 4

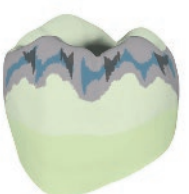
1 x apply Blue Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 5

1 x apply Dark Gray Liquid on the incisal area.



Buccal

06.

Coloring Dipping Technique

Perfit ZR ST White → A3

Step 1

Dip the restoration into A2 Liquid for 3sec and dry for 20~30minutes on 140 °C.

Drying Oven

Step 2

1 x apply A2 Liquid on a 1/3 of cervical.

Buccal

Step 3

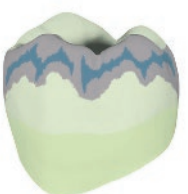
1 x apply Violet Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 4

1 x apply Blue Liquid on an incisal area and the occlusal surface.

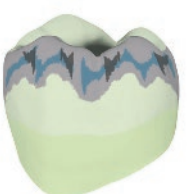


Buccal

Occlusal

Step 5

1 x apply Dark Gray Liquid on the incisal area.



Buccal

Perfit ZR ST White → A3.5

Step 1

Dip the restoration into A2 Liquid for 3sec and dry for 20~30minutes on 140 °C.

Drying Oven

Step 2

1 x apply A2 Liquid on a 2/3 of cervical and the 1/3 cervical.

Buccal

Step 3

1 x apply Violet Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 4

1 x apply Blue Liquid on an incisal area and the occlusal surface.

Buccal

Occlusal

Step 5

1 x apply Dark Gray Liquid on the incisal area.

Buccal

07.
Sintering

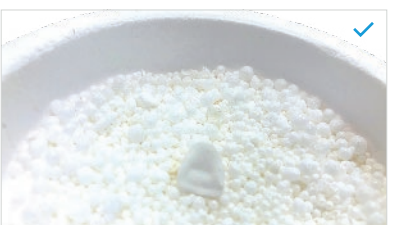
Sintering is an important process to achieve best shade and translucency.
Sinter the zirconia in accordance with the following heating schedule for optimum translucency and strength.
Follow the sintering schedule required for each zirconia.

Prior to Sintering

- Check the shrinkage rate or expansion factor given on the disc.
- Mill the disc into the required indications.
- If coloring liquids are infiltrated into the milled frameworks, dry them for 10-25 mins at temperature lower than 140°C depending on the size of restorations.

Anterior Single Crown

Place the restoration on the labial surface.



Place the restoration on the lingual surface.

Do NOT place the restoration on the crown margins.

Posterior Single Crown

Place the restoration on the occlusal surface.

Do NOT place the restoration on the crown margin.

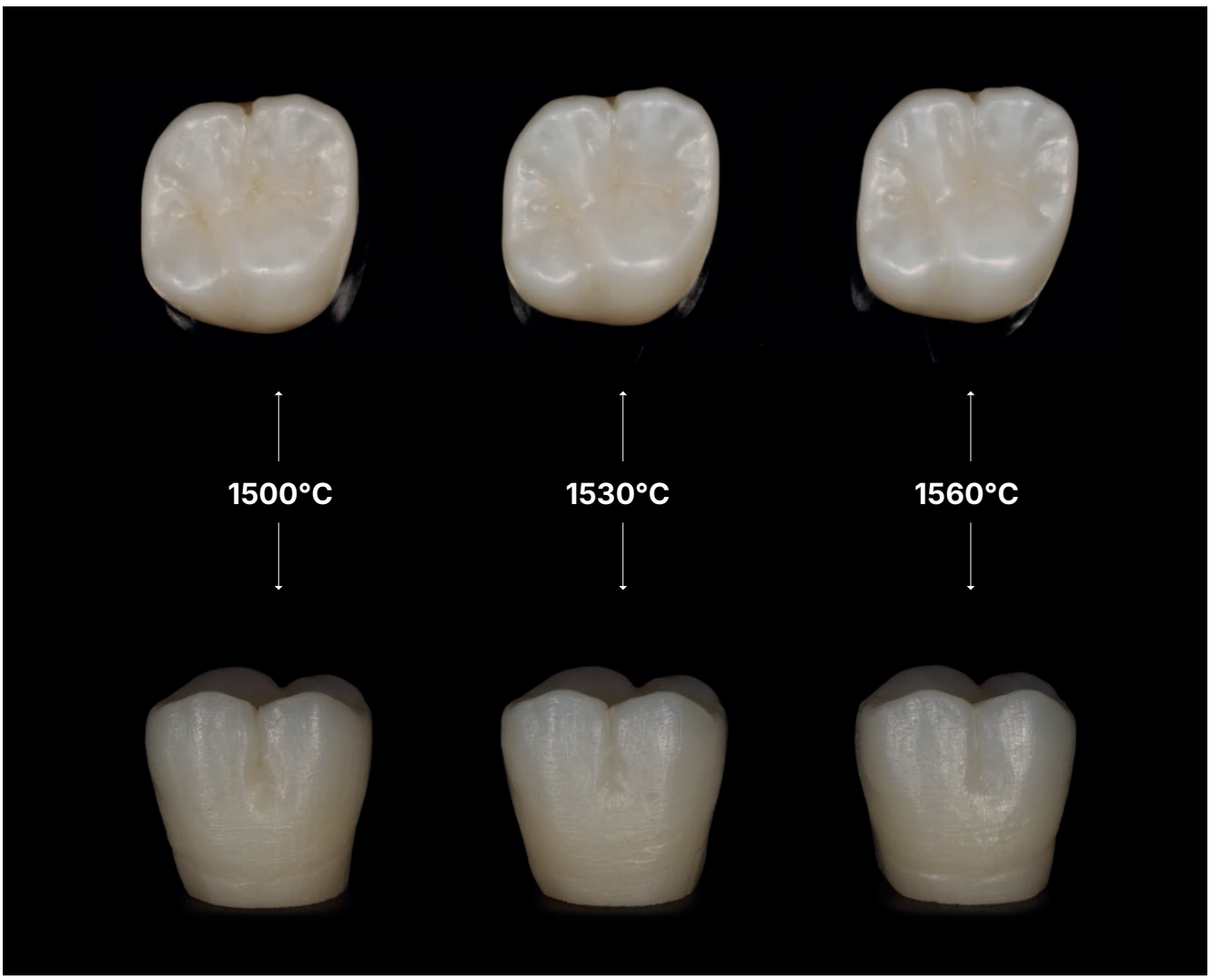
Anterior Bridges

Place the restoration on the labial surface and provide support to the pontic.

Place the restoration on the incisal edges. The pontic must rest on the sintering tray.

Do NOT place the restoration on Crown margins.

Since the sintering furnace condition and the working environment are different for each dental lab, it is recommended to test the sintering temperature 30 degrees above and below the given temperature and use the suitable temperature after testing. When the temperature is low at the reference temperature, chroma increases and brightness decreases. If the sintering temperature is excessively high, the chroma decreases and the brightness increases.



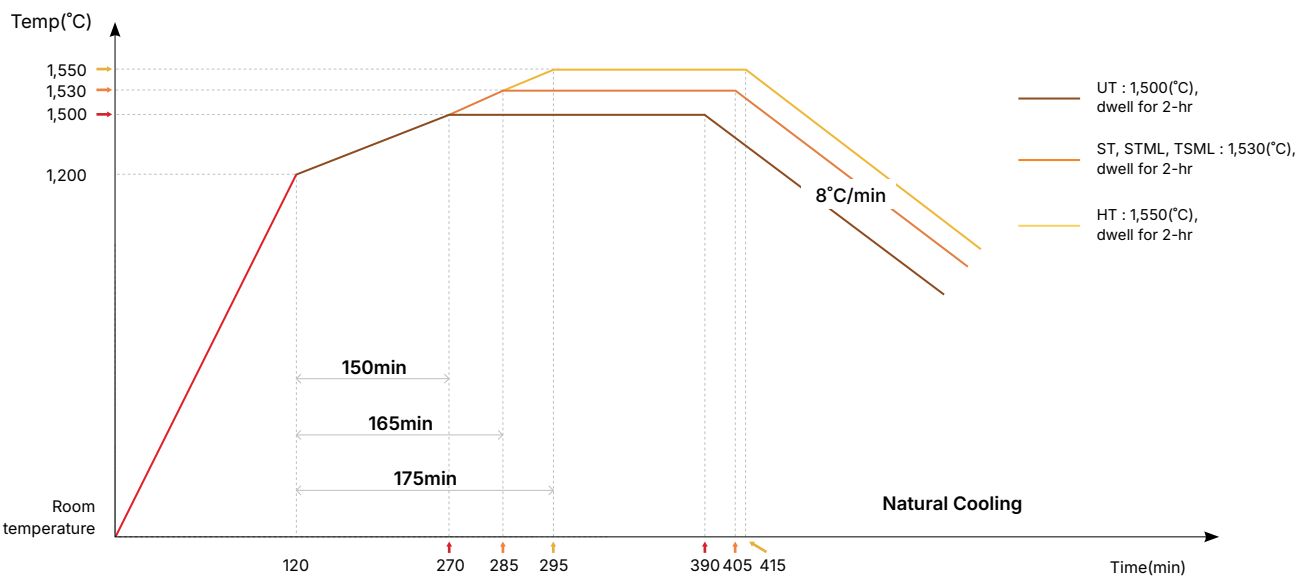
*** Perfit ZR ST**

Sintering Schedule

Volume change at 1,000°C, changing color at 1400°C, and coloring liquid diffusion at 1450-1550°C are generated for zirconia. Usually, sintering temperature at long time is stable for volume change, flexural strength and translucency.

Recommended Target Temp.(°C) Perfit ZR HT (1,550) / ST, STML, TSML (1,530) / UT (1,500)

Step	Starting Temp(˚C)	Target Temp(˚C)	Heating Rate (˚C/min)	Holding Time(h)
1	Room Temp	1,200	10	-
2	1,200	Target Temp	2	-
3	Target Temp	Target Temp	-	2
4	Target Temp	Room Temp	-8	-



Rapid Sintering Schedule

The table below shows the schedule for rapid sintering for Perfit ZR ST, Perfit ZR STML and Perfit ZR TSML.
This schedule is able to complete sintering about 84 minutes. Refer to the table below.

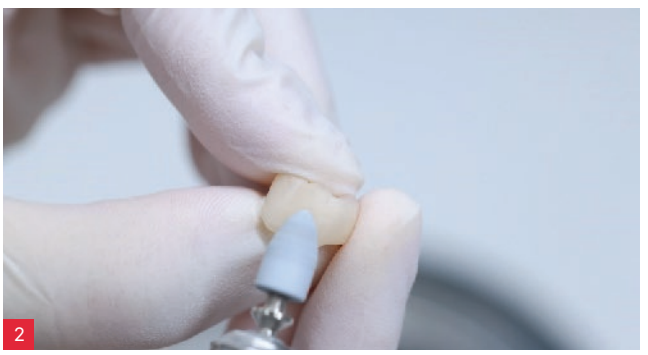
Step	Starting Temp(˚C)	Target Temp(˚C)	Heating Rate (˚C/min)	Time	Holding Time(h)
1	Room Temp	1,000	82	12	-
2	1,000	1,570	28	20	-
3	1,570	1,570	-	30	30
4	1,570	1,400	-34	5	-
5	1,400	1,200	-40	5	-
6	1,200	800	-34	12	-
7	R.T	-	-	-	Air cooling

08.
Finishing

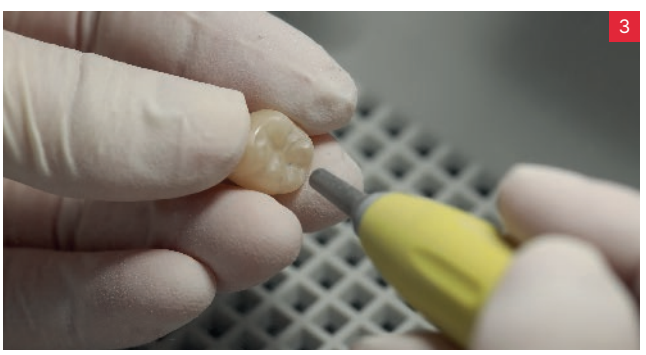
Final Contouring (adjustment inner surface, adjustment contact, adjustment occlusion, shaping), glazing(or polishing) are done to complete the crown.
Glazing makes zirconia softer and minimizes antagonist teeth wear. In addition, glazing expresses original teeth shade better and increases aesthetics. Polishing only brightens the outer surface, but translucency is reduced by the light reflection, so glazing is recommended over polishing.

3.8.1 Glazing Process

Smooth the surface with stone wheel after final contouring.

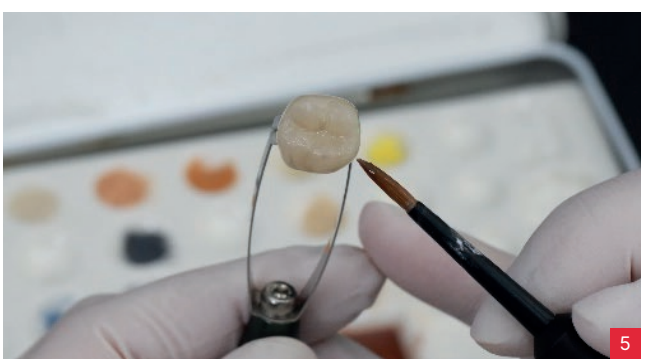


Smooth the surface with silicon carbide bur.



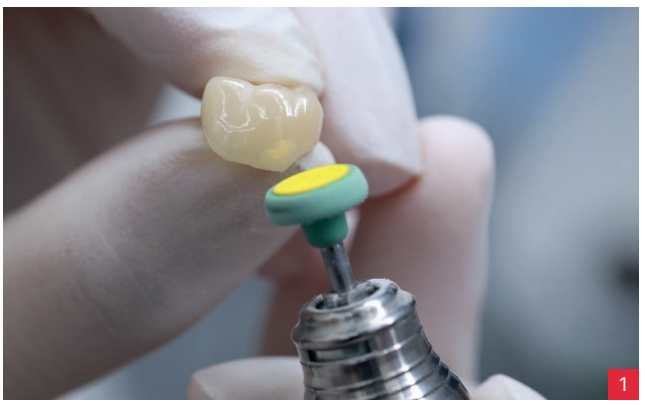
(Optional) Sandblast with 100 µm particle-sized alumina oxide (Al2O3) and with a pressure of 2-4 bar.

Steam clean the inner and outer surfaces at 3 cm to remove articulating paper and contaminants on the surface.

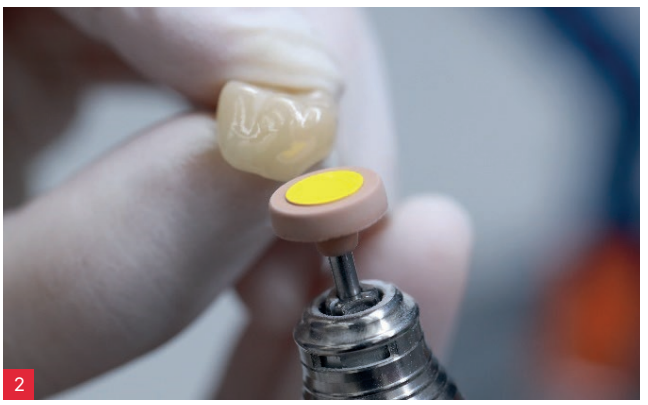


Glaze on the outer surface. In general, when glazed in high concentration, the brightness increases and when glazed in low concentration, the brightness decreases. Therefore, control the rate of glazing according to the needs.

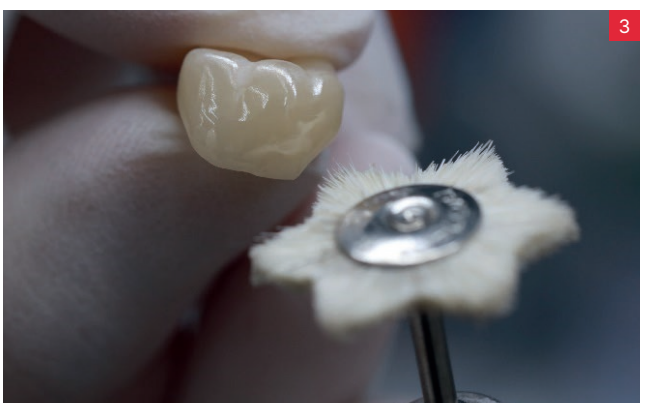
3.8.1 Polishing Process



Smooth outer surface using polish bur



Smooth outer surface using soft polishing bur



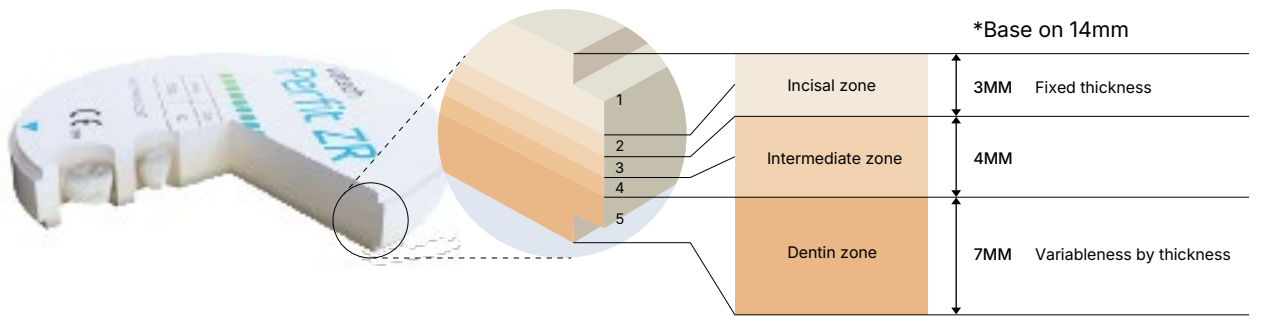
Polish the crown applying zirconia polishing paste on the bristle brush wheel.

Steam clean the inner and outer surfaces at 3 cm to remove articulating paper and contaminants on the surface.

FAQ

Material

1. What is the length of layers on Perfit ZR?
- Incisal zone is 3mm, Intermediate zone is 4mm, and Dentin zone varies by disc thickness.



2. How do you measure translucency?
- Using Spectrophotometer on a 1.0 mm sample

Nesting(Cam s/w) & Milling

1. Is the stabilizer needed for a full arch case?
- Yes, it offers more stability against shrinkage during sintering.

2. What is the expansion rate of Perfit ZR?
- Each product has a different rate, so be sure to check the provided information.

3. Can users use the C-type jig?
- Yes.

4. Is there any precaution before milling?
- The multilayered disc has a different shade for each layers, so optimal positioning is necessary.

Sintering

1. Is sintering temperature for the products all same?
- The sintering temperature is different depending on the product types.

2. May rapid sintering be used?
- Yes, we provide sintering schedule for Perfit ZR ST, Perfit ZR STML, Perfit ZR TSML. Refer to 31p.

3. How do I get the optimum result after sintering?
- Since the sintering furnace condition and the working environment are different for each dental lab, it is recommended to test the sintering temperature 30 degrees above and below the given temperature and decide on the most suitable sintering temperature.

4. Is it okay to use the sintering temperature of the full arch case according to the presented sintering temperature?
- Yes, you may use the proposed sintering temperature for full arch case.

Contouring

1. Can the result be different depending on the contouring?

- The results of chroma and brightness differ depending on the contouring method.
  When the surface of crown is rough, the chroma decreases and the brightness increases.
  When the surface is smooth, the chroma increases and the brightness decreases.
  The expression of chroma and brightness may be adjusted by controlling the surface roughness.

Coloring

1. Is it possible to color from the standard shade disc to another shade?
(ex. A2->A3.5, A3->A3.5)

- Although coloring is possible, translucency may be slightly lower than the reference shade disc.(Refer to 11p)

2. Can users use the same coloring technique for each type of disc?

- High chroma coloring liquids should be used on a Disc with high translucency.
  Perfit ZR TSML is consisted of 5Y-TZP on the Incisal, 4Y/5Y-TZP on the transition zone, and 4Y-TZP for cervical.
  The concentration of the coloring liquid should be adjusted depending on the layers applied.

3. Is it possible to use opaque coloring on the surface of Perfit ZR?

- Using Perfit ZR HT, which has relatively low translucency among Perfit ZR products,
  apply Snow Light very thinly on the inner surface before sintering. If the preparation is discolored,
  use Snow instead of Snow Light.

4. Is it compatible with other manufacturer's coloring liquid?

- It's compatible. Use a coloring liquid for dipping when using a white disc,
  and a coloring liquid of strong chroma when using a multilayered disc.
  Please note that the coloring liquid with high chroma fits well.

Finishing

1. Is it compatible with other manufacturer's porcelain powders?

- Yes, it is compatible. Make sure to set the firing temperature according to the manufacturers.

2. Is it necessary to etch inner surface?

- No, etching is not necessary.

3. What should users do to prevent cracks after glazing?

- Do not rapidly increase the temperature.
- Do not take out the crown from a porcelain furnace without cooling.
- Bridge or thicker implants should be put in the furnace separately for distinct temperature program
- Do not work near the furnace.
- Give sufficient drying time, especially if the coloring liquid is mixed with water.

Perfit ZR TSML Clinical Cases Photobook

- Scan QR code for viewing clinical cases.

Photobook

vatech

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