

# KATANA™ Zirconia RESTORATION SYSTEM

TRUE-TO-LIFE ZIRCONIA RESTORATIONS



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# KATANA™ Zirconia RESTORATION SYSTEM

**STREAMLINED ‘ONE-STOP’ SOLUTION TO OPTIMISE  
YOUR WORKFLOW.**



ALL YOUR  
HEART  
DESIRES

## KATANA™ Zirconia FAMILY

Kuraray Noritake Dental Inc. (Kuraray Noritake) offers five types of dental zirconia that fully meet your needs. But the line-up doesn't stop there. Kuraray Noritake has also developed specialised products for polishing, staining, glazing and porcelain veneering, based on a wealth of experience.

Our dental zirconia and ceramics ranges are well-aligned and designed to complement each other for streamlined procedures leading to brilliant treatment outcomes. On top of this, Kuraray Noritake's portfolio of resin cements offers all properties needed for an efficient cementation procedure leading to restorations that last.

## UTML

Suitable for monolithic true-to-life anterior restorations including veneers. This material offers a multi-layered colour structure and the highest translucency in the zirconia market.



## RECOMMENDED APPLICATIONS

- ✓ Veneers
- ✓ Inlays / onlays
- ✓ Anterior crowns

## STML

First choice for beautiful monolithic restorations that need well-balanced flexural strength and different levels of colour and translucency in the incisal and cervical area.



- ✓ Crowns
- ✓ Up to 3-unit bridges

## YML

State-of-the-art zirconia with colour, translucency and strength gradation. It has a strong body and highly translucent enamel layer for a wide indication range and easy to achieve aesthetics.



- ✓ Full-arch restorations
- ✓ Frameworks in cut-back design
- ✓ Long- and short-span bridges
- ✓ Crowns

## HTML PLUS

High-translucency zirconia option offering the high strength needed for long-span bridges, combined with an optimised translucency and vivid colour for a natural appearance.



- ✓ Long-span bridges
- ✓ Frameworks

## HT

A classic high-strength zirconia suitable for single-unit copings and long-span bridge frameworks. Available in five different disc thicknesses for maximum design flexibility.



- ✓ Full-arch frameworks
- ✓ Restorations with gums or bone parts

## PROCESS



## MILLING WITH PRECISION

Thanks to the exceptional quality and density of KATANA™ Zirconia blanks, the milled restorations are characterised by a superior edge stability and high surface quality leading to an accurate fit.



## SINTERING AT THE DESIRED SPEED

The extraordinarily high quality of KATANA™ Zirconia raw materials allows Kuraray Noritake to streamline sintering, enabling faster procedures without reducing strength and aesthetics.

## CHARACTERISE



## FINISHING WITH EASE

Porcelain layering with cutback, (ultra-) micro-layering or maximising the aesthetic result by characterisation: Kuraray Noritake offers a range of matching materials for every possible finishing procedure.

## AMPLIFY

## POLISHING FOR A NATURAL GLOSS

Kuraray Noritake's PEARL SURFACE™ Z containing different sizes of blended diamond particles is the logical choice for optimising polished zirconia restorations and frameworks



## CEMENT



## CEMENTING WITH CONFIDENCE

Kuraray Noritake's PANAVIA™ V5 is an excellent choice for zirconia cementation procedures in the laboratory, such as luting crowns to implant abutments or frameworks.

# EXPERT KNOWLEDGE IN ZIRCONIA MANUFACTURING

## HIGH-QUALITY RESTORATIONS EVERY TIME.

Although all zirconia blanks may look similar, quality and properties can differ widely as they are affected by:

- ✓ the quality of the raw materials
- ✓ raw material processing
- ✓ blank pressing
- ✓ pre-sintering

As the producer of KATANA™ Zirconia, Kuraray Noritake has established an end-to-end in-house production process that ensures full control over each of these steps.

1

## POWDER PRODUCTION

Kuraray Noritake benefits from in-house production of the raw materials required for dental zirconia. This provides the perfect base on which to use our multi-layering technology and add any other elements needed to create superior quality and purity of the formulation as well as a precise alignment of the desired properties.

### THE BENEFITS

- ✓ Natural translucency
- ✓ Shades matching “VITA classical A1-D4™ shade guide” concept
- ✓ Well-balanced flexural strength
- ✓ High aging resistance
- ✓ Reliable sintering performance

2

## BLANK PRESSING

Variations in blanks density, air pockets and impurities can lead to poor quality restorations. This is why Kuraray Noritake uses a unique and highly meticulous pressing process that provides for uniform pressure distribution.

### THE BENEFITS

- ✓ Uniform mechanical and optical properties
- ✓ Outstanding edge stability
- ✓ High surface quality
- ✓ Controlled sintering deformation

3

## PRE-SINTERING

Kuraray Noritake's state-of-the-art production facilities enable us to create highly stable pre-sintered blanks with precisely the right rigidity to withstand all kinds of milling.

### THE BENEFITS

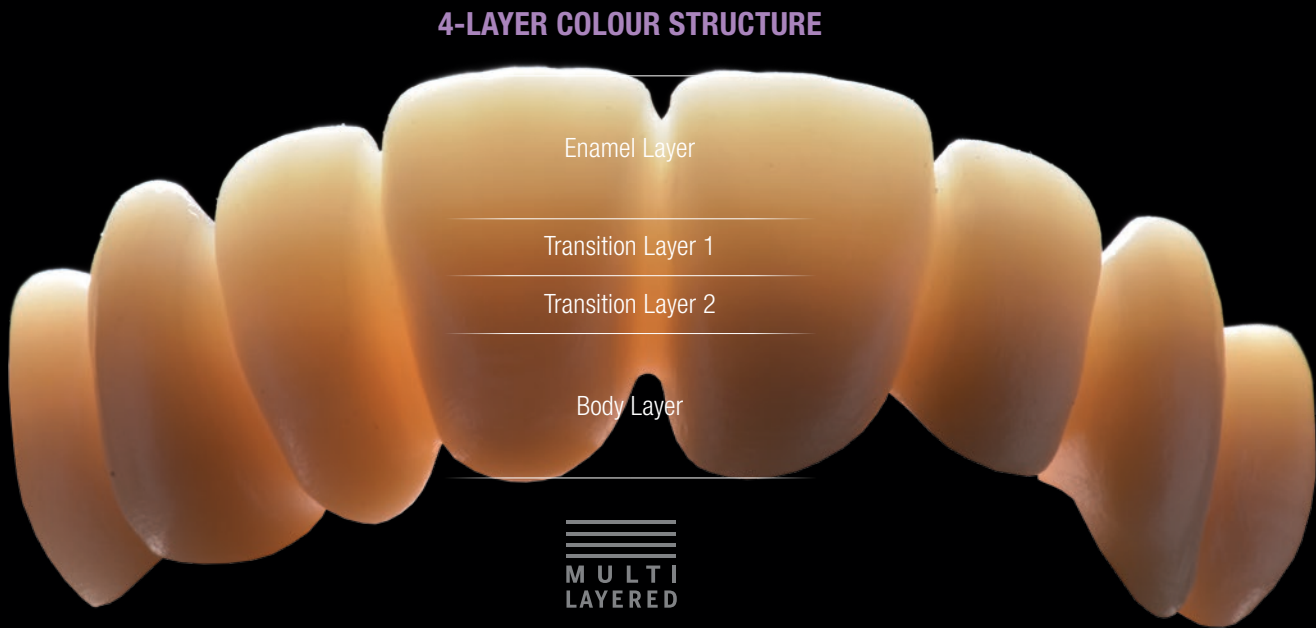
- ✓ High surface quality after milling
- ✓ Shorter sintering times possible  
(54 minutes for single tooth restorations and bridges with up to three units)

# NATURAL COLOUR GRADIENT

## FOR LIFE LIKE OUTCOMES

Kuraray Noritake is well aware of the importance of varying levels of chroma and translucency in different parts of a natural tooth. Our aim has been to mimic this effect even without the use of porcelain layering. In areas where the dentin core is revealed, a tooth is highly chromatic and rather opaque. In contrast, those parts of a tooth mainly composed of enamel – such as the incisal edge - are highly translucent and have a low chroma.

Our patented KATANA™ Zirconia multi-layered technology has been developed to precisely imitate this gradient in chroma and has virtually seamless transition between layers, resulting in a tooth-like appearance without the need for porcelain layering. The four types of multi-layered KATANA™ Zirconia (UTML, STML, YML\* and HTML PLUS) have a four-layer colour structure. The optical outcome is revealed immediately after sintering.

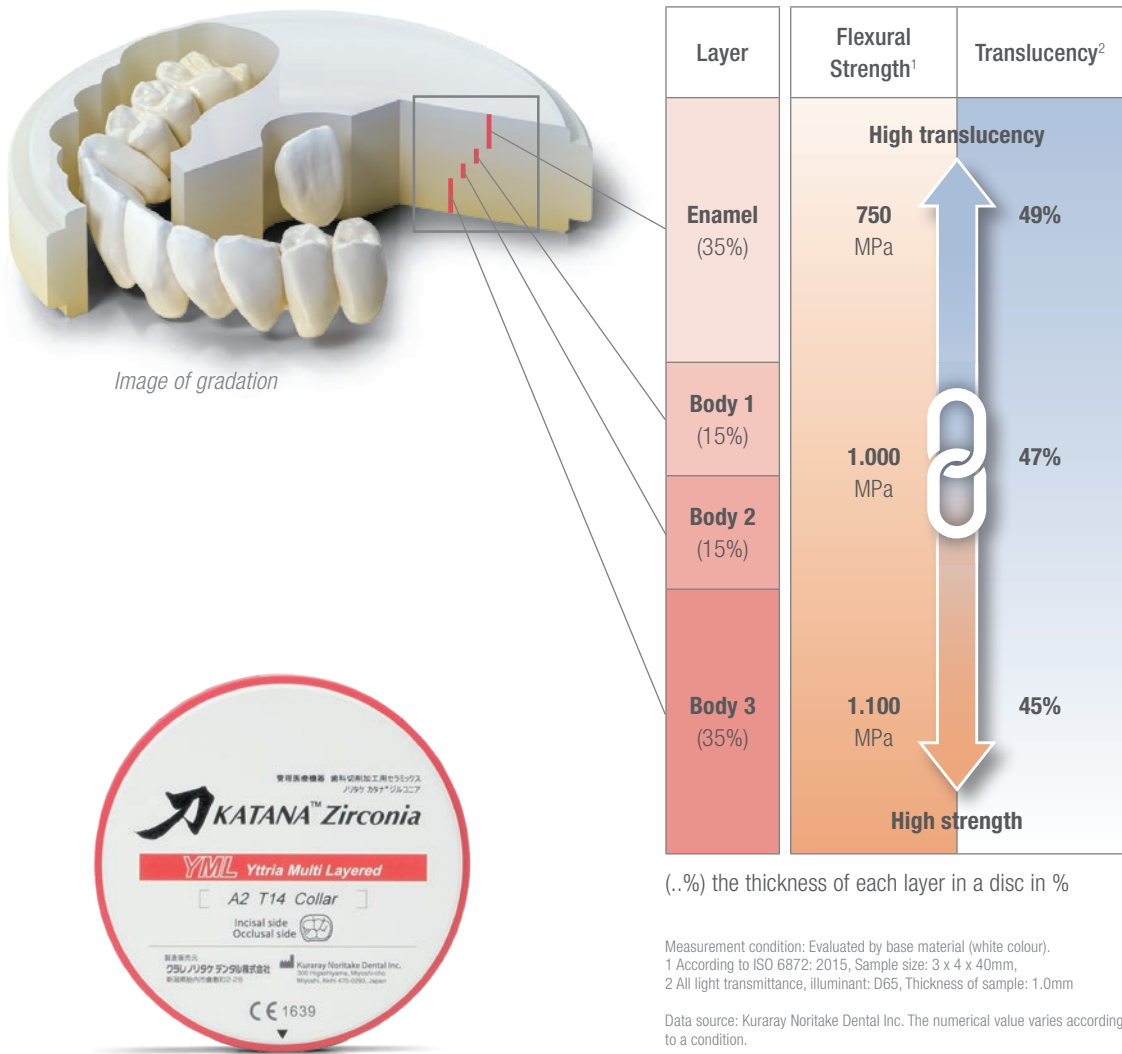


\*KATANA™ Zirconia YML detailed layer structure on page 5

# PROGRESSIVE ZIRCONIA GENERATION

## FOR A WIDE INDICATION RANGE

While some dental technicians like to switch between different zirconia materials and finishing techniques, others prefer to use a single zirconia for every indication. This is why Kuraray Noritake has developed a multi-layered zirconia with additional flexural-strength and translucency gradation – KATANA™ Zirconia YML. A smooth transition from one layer to the next delivers structural integrity and flawless aesthetics.



# EVERYTHING THE LAB NEEDS

Kuraray Noritake offers four different types of multi-layered dental zirconia to cover every indication as well as a single-layer HT option for the production of frameworks and long-span bridges. In the below chart you can view the range of recommended applications for all KATANA™ Zirconia discs.

|                                                                                                  | Laminate veneer<br>Inlay/Onlay | Anterior<br>Crown | Posterior<br>Crown | 3-unit Bridge<br>Anterior | 3-unit Bridge<br>Posterior | Long-span over<br>4-unit Bridge |
|--------------------------------------------------------------------------------------------------|--------------------------------|-------------------|--------------------|---------------------------|----------------------------|---------------------------------|
| <br>UTML       |                                |                   |                    |                           |                            |                                 |
| <br>STML      |                                |                   |                    |                           |                            |                                 |
| <br>HTML PLUS |                                |                   |                    |                           |                            |                                 |
| <br>YML       |                                |                   |                    |                           |                            |                                 |

MULTI  
LAYERED

# UTML

## THE EXPERT FOR ANTERIOR AESTHETICS



**KATANA™ Zirconia UTML**  
Is zirconia suitable for the production of lifelike monolithic anterior restorations, even veneers? KATANA™ Zirconia UTML with its predominantly cubic crystal structure is. Inspired by natural enamel, the material offers a light transmittance of 51 % and with it, the same as lithium disilicate LT ingot. Consequently, light passes through to the underlying natural tooth structure to reveal its original shade, leading to simply beautiful results!

- Recommended applications**
- ✓ Veneers
  - ✓ Inlays, onlays
  - ✓ Anterior crowns
- Additional applications**
- ✓ Anterior up to premolar 2- or 3-unit bridges
  - ✓ Single posterior crowns

- Recommended finishing method**  
Monolithic design + ultra-micro-layering with CERABIEN™ ZR FC Paste Stain
- Alternative finishing method**  
Vestibular cutback (0.3 mm) + micro-layering

|                               | Minimum wall thickness | Minimum connector cross section |
|-------------------------------|------------------------|---------------------------------|
| Veneer                        | 0.4 mm                 | -                               |
| Anterior crown                | 0.8 mm                 | -                               |
| Inlay/onlay                   | 1.0 mm                 | -                               |
| Posterior crown               | 1.0 mm                 | -                               |
| Anterior 2- or 3-unit bridges | 0.8 mm                 | 12 mm <sup>2</sup>              |
| Premolar 2- or 3-unit bridges | 1.0 mm                 | 16 mm <sup>2</sup>              |

**Translucency**  
51%

**Flexural Strength**  
557 MPa

All light transmittance, Illuminant: D65, Thickness of sample: 1.0mm. White-colour zirconia (base material) is used as testing material. Source: Kuraray Noritake Dental Inc.

Three point bending test according to ISO 6872:2015 - sample size 3 x 4 x 40 mm. Source: Kuraray Noritake Dental Inc.

Available disc thickness: 14mm and 18mm

# STML

## THE FIRST CHOICE FOR CROWNS AND UP TO 3-UNIT BRIDGES



### KATANA™ Zirconia STML

In order to produce a beautiful monolithic restoration, the materials used need to have a medium-to-high flexural strength and varying levels of translucency in the incisal and cervical area. This is because a lot of light is transmitted in the enamel area, while the colour of the underlying tooth structure should not be revealed. KATANA™ Zirconia STML, with its mainly cubic formulation, offers the perfectly balanced solution.

#### Recommended applications

- ✓ Anterior crowns and up to 3-unit bridges
- ✓ Posterior crowns and up to 3-unit bridges

#### Additional applications

- ✓ Inlays, onlays
- ✓ Veneers

#### Recommended finishing method

Monolithic design + ultra-micro-layering with CERABIEN™ ZR FC Paste Stain

#### Alternative finishing method

Vestibular cutback (0.3 mm) + micro-layering

|                                | Minimum wall thickness | Minimum connector cross section |
|--------------------------------|------------------------|---------------------------------|
| Veneer                         | 0.4 mm                 | -                               |
| Anterior crown                 | 0.8 mm                 | -                               |
| Inlay/onlay                    | 1.0 mm                 | -                               |
| Posterior crown                | 1.0 mm                 | -                               |
| Anterior 2- or 3-unit bridges  | 0.8 mm                 | 12 mm <sup>2</sup>              |
| Posterior 2- or 3-unit bridges | 1.0 mm                 | 16 mm <sup>2</sup>              |

#### Translucency

49%

#### Flexural Strength

748 MPa

All light transmittance, illuminant: D65, Thickness of sample: 1.0mm. White-colour zirconia (base material) is used as testing material. Source: Kuraray Noritake Dental Inc.

Three point bending test according to ISO 6872:2015 - sample size 3 x 4 x 40 mm. Source: Kuraray Noritake Dental Inc.

Available disc thickness: 14mm, 18mm and 22mm

# YML

## THE STATE-OF-THE-ART ALLROUNDER



### KATANA™ Zirconia YML

Long and complex geometries require the ultimate in strength, monolithic aesthetics and an ultra-high incisal translucency. For many years these properties were mutually exclusive, but they no longer are. With its strong body and highly translucent enamel layer, KATANA™ Zirconia YML offers the properties needed for a wide indication range. It is based on a new multi-layer technology featuring newly developed zirconia raw materials with different yttria concentrations integrated into a four-layer colour structure. The result is a chroma, translucency and flexural strength gradation with a seamless structure that allows to produce high-quality, lifelike restorations – including monolithic long-span bridges.

#### Recommended applications

- ✓ Full-arch restorations
- ✓ Long- and short-span bridges
- ✓ Anterior and posterior crowns
- ✓ Frameworks

#### Additional applications

- ✓ Inlays, onlays
- ✓ Veneers

#### Recommended finishing method

Monolithic design + ultra-micro-layering with CERABIEN™ ZR FC Paste Stain

#### Alternative finishing method

Vestibular cutback (0.3 mm) + micro-layering

|                                               | Minimum wall thickness | Minimum connector cross section |
|-----------------------------------------------|------------------------|---------------------------------|
| Veneer                                        | 0.4 mm                 | -                               |
| Anterior crown                                | 0.4 mm                 | -                               |
| Inlay/onlay                                   | 1.0 mm                 | -                               |
| Posterior crown                               | 0.5 mm                 | -                               |
| Anterior 2- or 3-unit bridges                 | 0.4 mm                 | 7 mm <sup>2</sup>               |
| Anterior long-span bridge (more than 4 units) | 0.4 mm                 | 9 mm <sup>2</sup>               |
| Posterior bridge                              | 0.5 mm                 | 9 mm <sup>2</sup>               |

#### Translucency

49%

#### Flexural Strength

750 MPa

All light transmittance, illuminant: D65, Thickness of sample: 1.0mm. White-colour zirconia (base material) is used as testing material. Source: Kuraray Noritake Dental Inc.

Three point bending test according to ISO 6872:2015 - sample size 3 x 4 x 40 mm. White-colour zirconia (base material) is used as testing material. Source: Kuraray Noritake Dental Inc.

Available disc thickness: 14mm, 18mm and 22mm

# HTML PLUS

## THE SOLUTION FOR COMPLEX RESTORATIONS



### Recommended applications

- ✓ Long-span bridges
- ✓ Frameworks in classical and cutback design

### Additional applications

- ✓ Anterior crowns
- ✓ Posterior crowns
- ✓ Veneers

### KATANA™ Zirconia HTML PLUS

A high flexural strength is one of the most important preconditions for the production of long-span bridges. With a strength of 1,150 MPa, the latest evolution in high-translucency zirconia from Kuraray Noritake – KATANA™ Zirconia HTML PLUS – offers precisely the right strength throughout the entire blank. Thanks to the use of new raw materials developed in-house, the material also offers a higher degree of translucency than its predecessor KATANA™ Zirconia HTML, as well as a brighter, deeper and more vivid colour for a better shade match with natural teeth. The result is a delicate framework or monolithic bridge with a beautiful shape and colour fitting the patient's natural dentition.

### Recommended finishing method

Monolithic design + ultra-micro-layering with CERABIEN™ ZR FC Paste Stain.

### Alternative finishing method

Vestibular cutback (0.3 mm) + micro-layering

|                                 | Minimum wall thickness | Minimum connector cross section |
|---------------------------------|------------------------|---------------------------------|
| Veneer                          | 0.4 mm                 | -                               |
| Anterior crown                  | 0.4 mm                 | -                               |
| Inlay/onlay                     | 0.5 mm                 | -                               |
| Posterior crown                 | 0.5 mm                 | -                               |
| Anterior 2- or 3-unit bridges   | 0.4 mm                 | 7 mm <sup>2</sup>               |
| Anterior 4-unit bridges or more | 0.4 mm                 | 9 mm <sup>2</sup>               |
| Posterior bridges               | 0.5 mm                 | 9 mm <sup>2</sup>               |

### Translucency

45%

### Flexural Strength

1,150 MPa

Measurement condition: Evaluated by base material (white colour)  
All light transmittance, illuminant: D65, Thickness of sample: 1.0 mm

According to ISO 6872: 2015, Sample size: 3 x 4 x 40 mm  
Data source: Kuraray Noritake Dental Inc. The numerical value varies according to a condition.

Available disc thickness: 14mm, 18mm and 22mm

# HT

## THE TIMELESS CLASSIC FOR FRAMEWORKS



### Recommended applications

- ✓ Full-arch frameworks
- ✓ Restorations with gum and bone parts

### Additional applications

- ✓ Anterior crown copings or bridge frameworks
- ✓ Posterior crown copings or bridge frameworks

### KATANA™ Zirconia HT

Due to its versatility, zirconia can even be the material of choice for complex cases with unbalanced jaw situations and patients with significant gingival recession or bone atrophy. KATANA™ Zirconia HT has been specifically developed for the production of full-arch frameworks or restorations with gum and bone parts. It offers an extremely high flexural strength of 1,125 MPa and is now available in five disc thicknesses – 10, 14, 18, 22 and 26 mm - for virtually unlimited design flexibility.

### Recommended finishing method

Framework design + full porcelain layering

### Alternative finishing method

Vestibular cutback (0.3 mm) + micro-layering

|                                                  | Minimum wall thickness | Minimum connector cross section |
|--------------------------------------------------|------------------------|---------------------------------|
| Veneer                                           | 0.4 mm                 | -                               |
| Anterior crown                                   | 0.4 mm                 | -                               |
| Inlay/onlay                                      | 0.5 mm                 | -                               |
| Posterior crown                                  | 0.5 mm                 | -                               |
| Anterior 2- or 3-unit bridges                    | 0.4 mm                 | 7 mm <sup>2</sup>               |
| Anterior more than 4-unit bridges                | 0.4 mm                 | 9 mm <sup>2</sup>               |
| Posterior 2- or 3-unit, more than 4-unit bridges | 0.5 mm                 | 9 mm <sup>2</sup>               |

### Translucency

45%

### Flexural Strength

1,125 MPa

All light transmittance, illuminant: D65, Thickness of sample: 1.0mm. White-colour zirconia (base material) is used as testing material. Source: Kuraray Noritake Dental Inc.

Three point bending test according to ISO 6872:2015 - sample size 3 x 4 x 40 mm. Source: Kuraray Noritake Dental Inc.

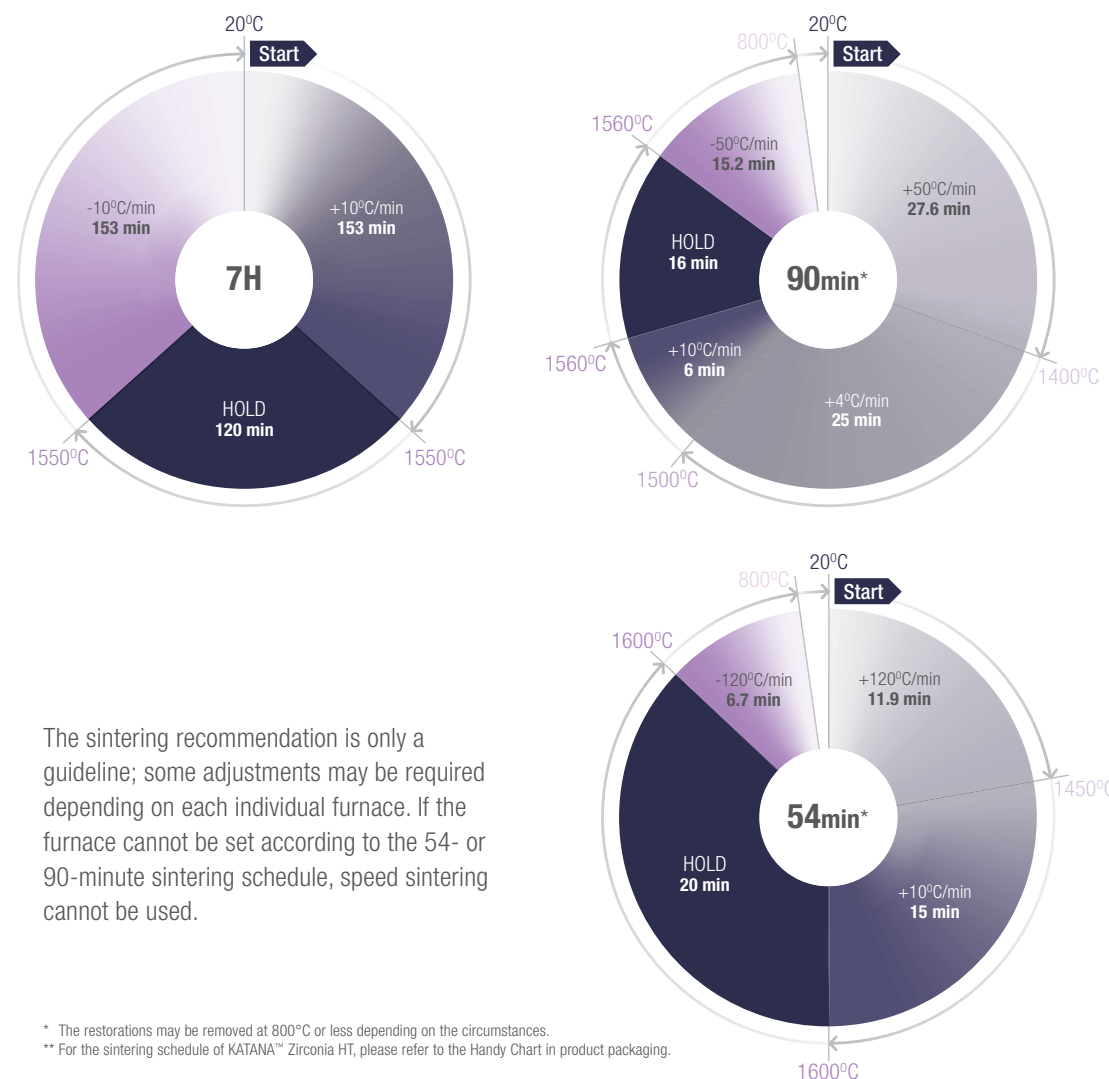
Available disc thickness: 10mm, 14mm, 18mm, 22mm and 26mm

# DIFFERENT SINTERING PROGRAMMES

## ADAPTED TO YOUR NEEDS

The unique powder composition and specific in-house blank production procedure makes it possible to streamline the sintering of KATANA™ Zirconia multi-layered discs. As a result, users may choose between the general 7 hour sintering programme and a faster 90-minute or even 54-minute protocol for single-tooth restorations and two to three-unit bridges.

The ultra-fast sintering programme of 54 minutes works with KATANA™ Zirconia UTML, STML, HTML PLUS and YML and becomes the go-to option for all rush cases. The optical and mechanical properties of the restorations are comparable to those achieved following a seven-hour sintering cycle.



The sintering recommendation is only a guideline; some adjustments may be required depending on each individual furnace. If the furnace cannot be set according to the 54- or 90-minute sintering schedule, speed sintering cannot be used.

# PROCESSING KATANA™ Zirconia

## WHAT DO YOU NEED TO KNOW?

Select the right disc type and size considering the height of the restoration

Use surgical gloves when handling pre-sintered discs to avoid contamination

Follow the recommended processing protocols before sintering: - colouring and characterization with compatible products only - sprue removal and adjustments like surface texturing with fine-grid diamond instruments for oxide ceramics used at low speed (7,000 to 10,000 rpm) - removal of powder residues with a gentle stream of air or a brush, no steam cleaning, no ultrasonic bath. Drying is recommended

Remove the dust from the sintering chamber and heating elements with a soft brush before each use

Strictly adhere to the sintering protocols recommended by the material manufacturer  
 Do not place different zirconia on the same tray. Use a cover for the tray

If you use alumina sintering beads: Replace them whenever they show signs of discolouration (at least once per month) or use beadless tray

Calibrate your furnace and check the temperature every two weeks following instructions of the manufacturer. Adjust the temperature if needed

Run a decontamination program with decontaminating powder or white zirconia residues (γ-TZP) at least once per month

Sandblast before hand-polishing or glazing with aluminum oxide 50 micron, 20 or 25 psi, repeat the procedure on bonding surfaces afterwards

Use PANAVIA™ cements for cementation



Recommended by  
 CDT Jean Chiha

Official Kuraray Noritake Dental Inc. instructor

# ZERO-CUTBACK FINISHING

## FOR MONOLITHIC ZIRCONIA RESTORATIONS

Polishing, glazing, staining or porcelain layering? Kuraray Noritake offers perfectly matching products for every finishing procedure preference. For monolithic restorations comprising KATANA™ Zirconia UTML, STML and YML, we recommend the use of ultra-micro-layering with CERABIEN™ ZR FC Paste Stain.

### BENEFITS

Ready-to-use paste-type external stains, no mixing required

Consistent handling and mechanical properties due to use of synthetic feldspathic porcelain

Integrated fluorescence in all shades, additional Fluoro to boost this effect even more

Visual appearance during application closely resembles expected result after baking

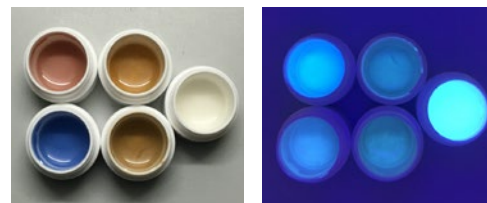
Paste-like consistency enables creation of surface texture

Wide shade range for virtually unlimited creation of individual effects (white and dark spots, crack lines, fissures)

Comparatively low firing temperature of 750°C/1382°F

Long-lasting effect – ceramic particles surround and protect shading elements from wear

Suitable for characterization of porcelain and zirconia restorations



CERABIEN™ ZR FC Paste Stain: Consistency, colour and fluorescence of the liquid ceramic.



# MICRO-LAYERING WITH 0.3 MM CUTBACK

## MIMIC NATURE WITH MINIMAL EFFORT

Whenever the aesthetic demands are particularly high and restorations are produced from KATANA™ Zirconia UTML, STML, YML or HTML PLUS, micro-layering is the recommended approach. For this purpose, a small vestibular cutback (of 0.3 mm) is typically performed. A combination of CERABIEN™ MiLai Porcelains and Internal Stains and FC Paste Stain is used to create a natural appearance.

- CERABIEN™ MiLai Internal Stains: imitation of enamel cracks, dark or white spots, mamelons etc.
- CERABIEN™ MiLai Porcelains: creation of a window effect, adding depth and volume, enamel replacement
- CERABIEN™ ZR FC Paste Stain: creation 3d effect, value correction, external staining, texturing etc.

### BENEFITS

Reproduce natural beauty with minimal effort and time

With aesthetic base materials like KATANA™ Zirconia UTML, STML or YML, the results are similar to those achieved with full porcelain layering on opaque frameworks

CERABIEN™ MiLai is based on synthetic feldspathic porcelain, designed to have excellent particle distribution.

Components may be combined as desired – from internal stains plus glaze alone to all three types of material



# FULL PORCELAIN LAYERING

## FOR ULTIMATE AESTHETICS

Full porcelain layering on a classical framework remains the most aesthetic way of finishing zirconia restorations. By adding different layers of porcelain, ceramists are able to imitate the natural internal colour structure of a tooth precisely, creating a piece of art that truly matches the appearance of the adjacent teeth.

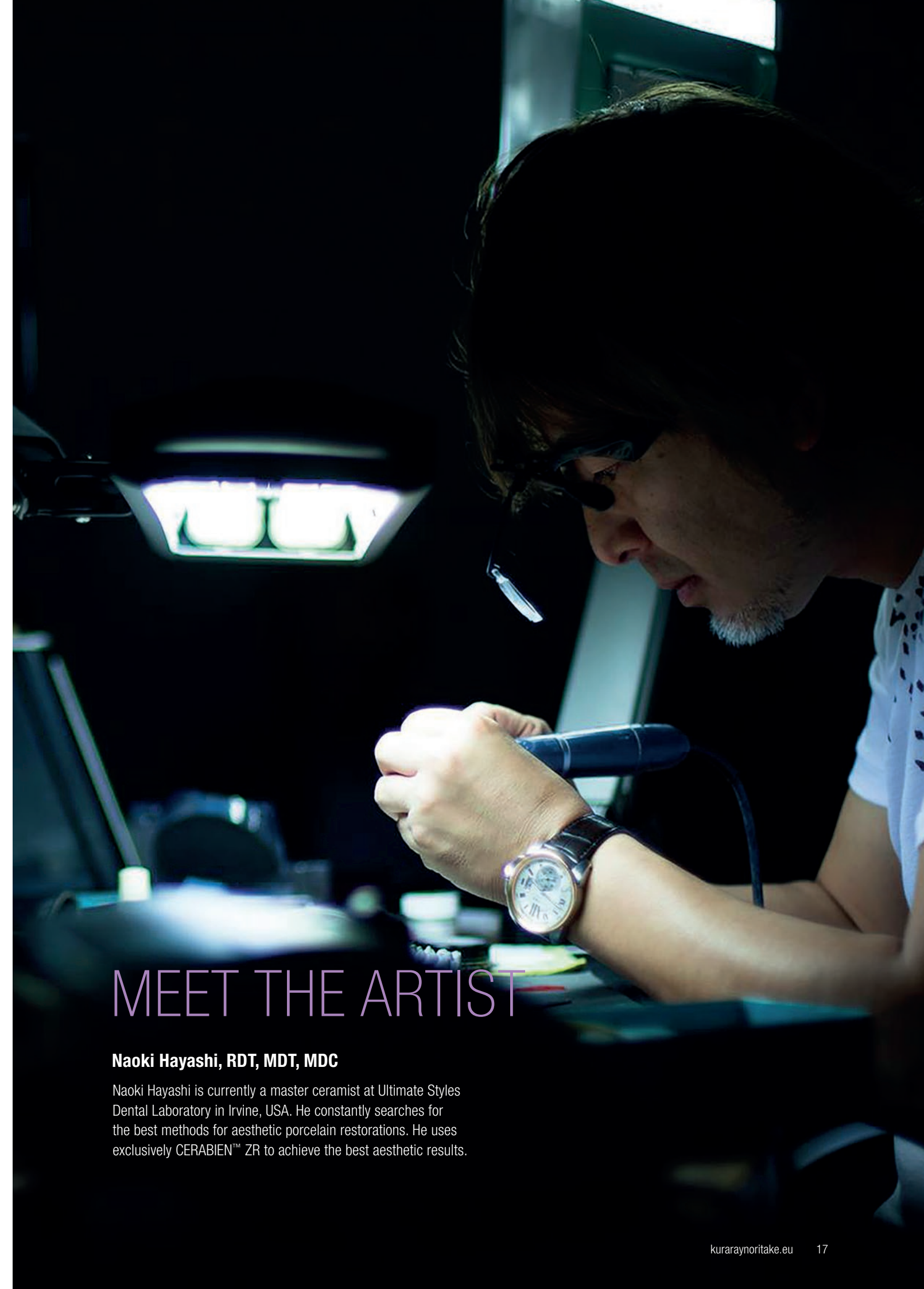
The complete family of CERABIEN™ ZR line-up of internal stains, layering powders, external stains and even PRESS shade base stains is designed for this approach on frameworks typically made from KATANA™ Zirconia HTML PLUS or HT.

### BENEFITS

Creates a true piece of art to fulfil the highest aesthetic demands

CERABIEN™ ZR portfolio is based on synthetic feldspathic porcelain providing for consistent handling and mechanical properties

Complete line-up may be combined as desired



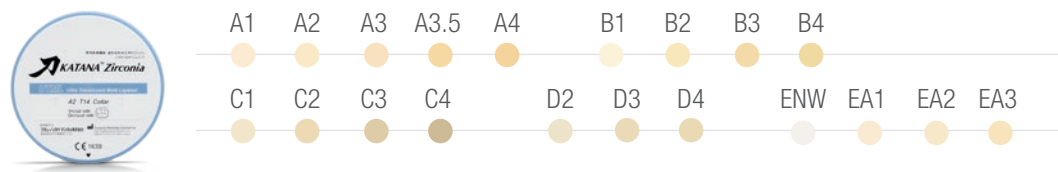
## MEET THE ARTIST

### Naoki Hayashi, RDT, MDT, MDC

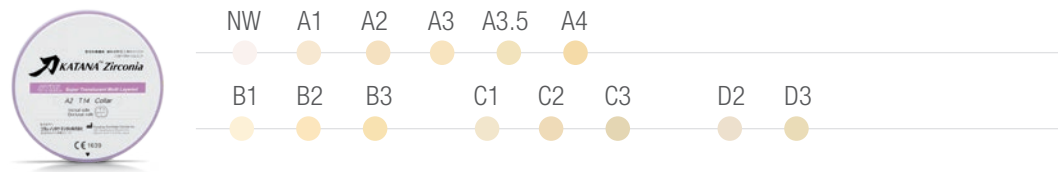
Naoki Hayashi is currently a master ceramist at Ultimate Styles Dental Laboratory in Irvine, USA. He constantly searches for the best methods for aesthetic porcelain restorations. He uses exclusively CERABIEN™ ZR to achieve the best aesthetic results.

# SHADE SELECTION

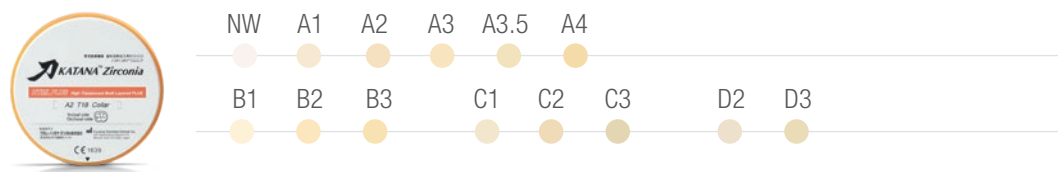
## KATANA™ Zirconia UTML



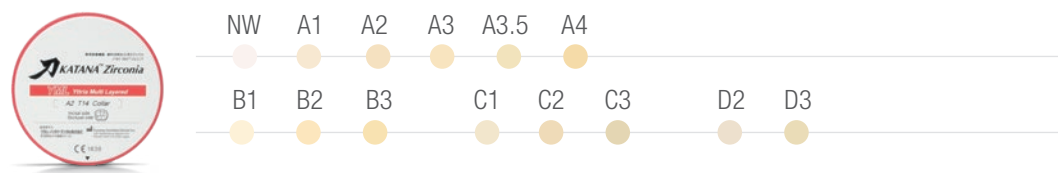
## KATANA™ Zirconia STML



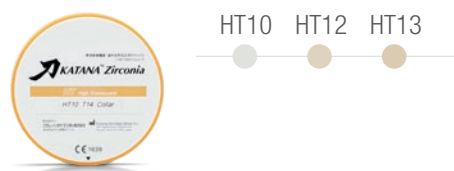
## KATANA™ Zirconia HTML PLUS



## KATANA™ Zirconia YML



## KATANA™ Zirconia HT



## KATANA™ Zirconia UTML

|             |            |          |
|-------------|------------|----------|
| #125-3302EU | EA1 COLLAR | T: 14 mm |
| #125-3313EU | EA1 COLLAR | T: 18 mm |
| #125-3332EU | EA2 COLLAR | T: 14 mm |
| #125-3343EU | EA2 COLLAR | T: 18 mm |
| #125-3362EU | EA3 COLLAR | T: 14 mm |
| #125-3373EU | EA3 COLLAR | T: 18 mm |
| #125-3392EU | ENW COLLAR | T: 14 mm |
| #125-3403EU | ENW COLLAR | T: 18 mm |
| #125-3842EU | A1 COLLAR  | T: 14 mm |
| #125-3853EU | A1 COLLAR  | T: 18 mm |

|             |             |          |
|-------------|-------------|----------|
| #125-3872EU | A2 COLLAR   | T: 14 mm |
| #125-3883EU | A2 COLLAR   | T: 18 mm |
| #125-3902EU | A3 COLLAR   | T: 14 mm |
| #125-3913EU | A3 COLLAR   | T: 18 mm |
| #125-3932EU | A3.5 COLLAR | T: 14 mm |
| #125-3943EU | A3.5 COLLAR | T: 18 mm |
| #125-3962EU | A4 COLLAR   | T: 14 mm |
| #125-3973EU | A4 COLLAR   | T: 18 mm |
| #125-3992EU | B1 COLLAR   | T: 14 mm |
| #125-4003EU | B1 COLLAR   | T: 18 mm |

|             |           |          |
|-------------|-----------|----------|
| #125-4022EU | B2 COLLAR | T: 14 mm |
| #125-4033EU | B2 COLLAR | T: 18 mm |
| #125-4052EU | B3 COLLAR | T: 14 mm |
| #125-4063EU | B3 COLLAR | T: 18 mm |
| #125-4082EU | B4 COLLAR | T: 14 mm |
| #125-4093EU | B4 COLLAR | T: 18 mm |
| #125-4112EU | C1 COLLAR | T: 14 mm |
| #125-4123EU | C1 COLLAR | T: 18 mm |
| #125-4142EU | C2 COLLAR | T: 14 mm |
| #125-4153EU | C2 COLLAR | T: 18 mm |

|             |           |          |
|-------------|-----------|----------|
| #125-4172EU | C3 COLLAR | T: 14 mm |
| #125-4183EU | C3 COLLAR | T: 18 mm |
| #125-4202EU | C4 COLLAR | T: 14 mm |
| #125-4213EU | C4 COLLAR | T: 18 mm |
| #125-4232EU | D2 COLLAR | T: 14 mm |
| #125-4243EU | D2 COLLAR | T: 18 mm |
| #125-4262EU | D3 COLLAR | T: 14 mm |
| #125-4273EU | D3 COLLAR | T: 18 mm |
| #125-4292EU | D4 COLLAR | T: 14 mm |
| #125-4303EU | D4 COLLAR | T: 18 mm |

## KATANA™ Zirconia STML

|             |             |          |
|-------------|-------------|----------|
| #125-3122EU | A1 COLLAR   | T: 14 mm |
| #125-3133EU | A1 COLLAR   | T: 18 mm |
| #125-3144EU | A1 COLLAR   | T: 22 mm |
| #125-3152EU | A2 COLLAR   | T: 14 mm |
| #125-3163EU | A2 COLLAR   | T: 18 mm |
| #125-3174EU | A2 COLLAR   | T: 22 mm |
| #125-3182EU | A3 COLLAR   | T: 14 mm |
| #125-3193EU | A3 COLLAR   | T: 18 mm |
| #125-3204EU | A3 COLLAR   | T: 22 mm |
| #125-3212EU | A3.5 COLLAR | T: 14 mm |
| #125-3223EU | A3.5 COLLAR | T: 18 mm |

|             |             |          |
|-------------|-------------|----------|
| #125-3234EU | A3.5 COLLAR | T: 22 mm |
| #125-3242EU | NW COLLAR   | T: 14 mm |
| #125-3253EU | NW COLLAR   | T: 18 mm |
| #125-3264EU | NW COLLAR   | T: 22 mm |
| #125-5232EU | A4 COLLAR   | T: 14 mm |
| #125-5243EU | A4 COLLAR   | T: 18 mm |
| #125-5254EU | A4 COLLAR   | T: 22 mm |
| #125-5262EU | B1 COLLAR   | T: 14 mm |
| #125-5273EU | B1 COLLAR   | T: 18 mm |
| #125-5284EU | B1 COLLAR   | T: 22 mm |
| #125-5292EU | B2 COLLAR   | T: 14 mm |

|             |           |          |
|-------------|-----------|----------|
| #125-5303EU | B2 COLLAR | T: 18 mm |
| #125-5314EU | B2 COLLAR | T: 22 mm |
| #125-5322EU | B3 COLLAR | T: 14 mm |
| #125-5333EU | B3 COLLAR | T: 18 mm |
| #125-5344EU | B3 COLLAR | T: 22 mm |
| #125-5352EU | C1 COLLAR | T: 14 mm |
| #125-5363EU | C1 COLLAR | T: 18 mm |
| #125-5374EU | C1 COLLAR | T: 22 mm |
| #125-5382EU | C2 COLLAR | T: 14 mm |
| #125-5393EU | C2 COLLAR | T: 18 mm |
| #125-5404EU | C2 COLLAR | T: 22 mm |

|             |           |          |
|-------------|-----------|----------|
| #125-5412EU | C3 COLLAR | T: 14 mm |
| #125-5423EU | C3 COLLAR | T: 18 mm |
| #125-5434EU | C3 COLLAR | T: 22 mm |
| #125-5442EU | D2 COLLAR | T: 14 mm |
| #125-5453EU | D2 COLLAR | T: 18 mm |
| #125-5464EU | D2 COLLAR | T: 22 mm |
| #125-5472EU | D3 COLLAR | T: 14 mm |
| #125-5483EU | D3 COLLAR | T: 18 mm |
| #125-5494EU | D3 COLLAR | T: 22 mm |

## KATANA™ Zirconia HTML PLUS

|             |                  |          |
|-------------|------------------|----------|
| #125-8922EU | HTML A1 COLLAR   | T: 14 mm |
| #125-8933EU | HTML A1 COLLAR   | T: 18 mm |
| #125-8944EU | HTML A1 COLLAR   | T: 22 mm |
| #125-8952EU | HTML A2 COLLAR   | T: 14 mm |
| #125-8963EU | HTML A2 COLLAR   | T: 18 mm |
| #125-8974EU | HTML A2 COLLAR   | T: 22 mm |
| #125-8982EU | HTML A3 COLLAR   | T: 14 mm |
| #125-8993EU | HTML A3 COLLAR   | T: 18 mm |
| #125-9004EU | HTML A3 COLLAR   | T: 22 mm |
| #125-9012EU | HTML A3.5 COLLAR | T: 14 mm |
| #125-9023EU | HTML A3.5 COLLAR | T: 18 mm |

|             |                  |          |
|-------------|------------------|----------|
| #125-9034EU | HTML A3.5 COLLAR | T: 22 mm |
| #125-9042EU | HTML A4 COLLAR   | T: 14 mm |
| #125-9053EU | HTML A4 COLLAR   | T: 18 mm |
| #125-9064EU | HTML A4 COLLAR   | T: 22 mm |
| #125-9072EU | HTML B1 COLLAR   | T: 14 mm |
| #125-9083EU | HTML B1 COLLAR   | T: 18 mm |
| #125-9094EU | HTML B1 COLLAR   | T: 22 mm |
| #125-9102EU | HTML B2 COLLAR   | T: 14 mm |
| #125-9113EU | HTML B2 COLLAR   | T: 18 mm |
| #125-9124EU | HTML B2 COLLAR   | T: 22 mm |
| #125-9132EU | HTML B3 COLLAR   | T: 14 mm |

|             |                |          |
|-------------|----------------|----------|
| #125-9143EU | HTML B3 COLLAR | T: 18 mm |
| #125-9154EU | HTML B3 COLLAR | T: 22 mm |
| #125-9162EU | HTML C1 COLLAR | T: 14 mm |
| #125-9173EU | HTML C1 COLLAR | T: 18 mm |
| #125-9184EU | HTML C1 COLLAR | T: 22 mm |
| #125-9192EU | HTML C2 COLLAR | T: 14 mm |
| #125-9203EU | HTML C2 COLLAR | T: 18 mm |
| #125-9214EU | HTML C2 COLLAR | T: 22 mm |
| #125-9222EU | HTML C3 COLLAR | T: 14 mm |
| #125-9233EU | HTML C3 COLLAR | T: 18 mm |
| #125-9244EU | HTML C3 COLLAR | T: 22 mm |

|             |                |          |
|-------------|----------------|----------|
| #125-9252EU | HTML D2 COLLAR | T: 14 mm |
| #125-9263EU | HTML D2 COLLAR | T: 18 mm |
| #125-9274EU | HTML D2 COLLAR | T: 22 mm |
| #125-9282EU | HTML D3 COLLAR | T: 14 mm |
| #125-9293EU | HTML D3 COLLAR | T: 18 mm |
| #125-9304EU | HTML D3 COLLAR | T: 22 mm |
| #125-9312EU | HTML NW COLLAR | T: 14 mm |
| #125-9323EU | HTML NW COLLAR | T: 18 mm |
| #125-9334EU | HTML NW COLLAR | T: 22 mm |

## KATANA™ Zirconia YML

|             |                 |          |
|-------------|-----------------|----------|
| #125-7932EU | YML A1 COLLAR   | T: 14 mm |
| #125-7943EU | YML A1 COLLAR   | T: 18 mm |
| #125-7954EU | YML A1 COLLAR   | T: 22 mm |
| #125-7962EU | YML A2 COLLAR   | T: 14 mm |
| #125-7973EU | YML A2 COLLAR   | T: 18 mm |
| #125-7984EU | YML A2 COLLAR   | T: 22 mm |
| #125-7992EU | YML A3 COLLAR   | T: 14 mm |
| #125-8003EU | YML A3 COLLAR   | T: 18 mm |
| #125-8014EU | YML A3 COLLAR   | T: 22 mm |
| #125-8022EU | YML A3.5 COLLAR | T: 14 mm |
| #125-8033EU | YML A3.5 COLLAR | T: 18 mm |

|             |                 |          |
|-------------|-----------------|----------|
| #125-8044EU | YML A3.5 COLLAR | T: 22 mm |
| #125-8052EU | YML A4 COLLAR   | T: 14 mm |
| #125-8063EU | YML A4 COLLAR   | T: 18 mm |
| #125-8074EU | YML A4 COLLAR   | T: 22 mm |
| #125-8082EU | YML B1 COLLAR   | T: 14 mm |
| #125-8093EU | YML B1 COLLAR   | T: 18 mm |
| #125-8104EU | YML B1 COLLAR   | T: 22 mm |
| #125-8112EU | YML B2 COLLAR   | T: 14 mm |
| #125-8123EU | YML B2 COLLAR   | T: 18 mm |
| #125-8134EU | YML B2 COLLAR   | T: 22 mm |
| #125-8142EU | YML B3 COLLAR   | T: 14 mm |

|             |               |          |
|-------------|---------------|----------|
| #125-8153EU | YML B3 COLLAR | T: 18 mm |
| #125-8164EU | YML B3 COLLAR | T: 22 mm |
| #125-8172EU | YML C1 COLLAR | T: 14 mm |
| #125-8183EU | YML C1 COLLAR | T: 18 mm |
| #125-8194EU | YML C1 COLLAR | T: 22 mm |
| #125-8202EU | YML C2 COLLAR | T: 14 mm |
| #125-8213EU | YML C2 COLLAR | T: 18 mm |
| #125-8224EU | YML C2 COLLAR | T: 22 mm |
| #125-8232EU | YML C3 COLLAR | T: 14 mm |
| #125-8243EU | YML C3 COLLAR | T: 18 mm |
| #125-8254EU | YML C3 COLLAR | T: 22 mm |

|             |               |          |
|-------------|---------------|----------|
| #125-8262EU | YML D2 COLLAR | T: 14 mm |
| #125-8273EU | YML D2 COLLAR | T: 18 mm |
| #125-8284EU | YML D2 COLLAR | T: 22 mm |
| #125-8292EU | YML D3 COLLAR | T: 14 mm |
| #125-8303EU | YML D3 COLLAR | T: 18 mm |
| #125-8314EU | YML D3 COLLAR | T: 22 mm |
| #125-8322EU | YML NW COLLAR | T: 14 mm |
| #125-8333EU | YML NW COLLAR | T: 18 mm |
| #125-8344EU | YML NW COLLAR | T: 22 mm |

## KATANA™ Zirconia HT

|             |                |          |
|-------------|----------------|----------|
| #125-2111EU | HT 10 STRAIGHT | T: 10 mm |
| #125-2122EU | HT 10 COLLAR   | T: 14 mm |
| #125-2133EU | HT 10 COLLAR   | T: 18 mm |
| #125-2144EU | HT 10 COLLAR   | T: 22 mm |

|             |                |          |
|-------------|----------------|----------|
| #125-2155EU | HT 10 COLLAR   | T: 26 mm |
| #125-2251EU | HT 12 STRAIGHT | T: 10 mm |
| #125-2262EU | HT 12 COLLAR   | T: 14 mm |
| #125-2273EU | HT 12 COLLAR   | T: 18 mm |

|             |                |          |
|-------------|----------------|----------|
| #125-2284EU | HT 12 COLLAR   | T: 22 mm |
| #125-2301EU | HT 13 STRAIGHT | T: 10 mm |
| #125-2312EU | HT 13 COLLAR   | T: 14 mm |

|             |              |          |
|-------------|--------------|----------|
| #125-2323EU | HT 13 COLLAR | T: 18 mm |
| #125-2334EU | HT 13 COLLAR | T: 22 mm |
| #125-2345EU | HT 13 COLLAR | T: 26 mm |

A1-D4 shades mentioned are in accordance with "VITA classical A1-D4™ shade guide" concept.

# CEMENTING SOLUTION FOR THE DENTAL LAB

## FOR LONG-TERM BONDING

### PANAVIA™ V5

An aesthetic and reliable cementation material designed to work predictably with the selected zirconia is not only essential in the dental surgery but also in every laboratory. It is needed to cement a zirconia crown to an implant abutment or titanium base, or to bond restorations to frameworks. PANAVIA™ V5 is the go-to product for situations demanding the highest possible bond strength. It is Kuraray Noritake's strongest-ever cement and, with five shades, it is also the most aesthetic.



### KATANA™ Cleaner

KATANA™ Cleaner removes contamination to optimise adhesive procedures. It has a high cleaning effect due to the surface-active characteristic of MDP Salt. Suitable for intra- and extra-oral use, it is the excellent choice for the cleaning of all bonding surfaces (teeth and restorations), which are potentially contaminated with saliva or blood after try-in.



### INDICATION RANGE

Cementation of prosthetic restorations on implant abutments and frames

Cementation of crowns, bridges, inlays and onlays

Cementation of veneers

Cementation of adhesion bridges and splints

Cementation of posts and cores

Amalgam bonding

### BENEFITS

Intra- and extra-oral use

High cleaning effect

Easy procedure – rub, rinse and dry

Fast application – 10 seconds of rubbing

# ALIGNED PRODUCTS FOR THE DENTAL OFFICE

## HIGHLY COMMENDABLE

The performance of zirconia restorations is determined not only by production processes carried out in the dental laboratory; clinical procedures such as cementation and intra-oral adjustments have an impact as well. This is why Kuraray Noritake offers a variety of products for dentists to be used for cementation and finishing.

### PANAVIA™ SA Cement Universal

The self-adhesive resin cement contains the unique LCSi monomer that delivers a strong, durable chemical bond to various materials such as, porcelain, lithium disilicate and composite resin without the need for a separate primer. The original MDP monomer, also present in the paste, allows for chemical reactivity with zirconia, dentin and enamel.



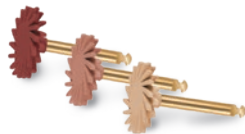
### PANAVIA™ Veneer LC

Minimally invasive procedures using highly aesthetic restorations is what patients expect when they seek restorative treatment. With the various types of restorations available today, it is possible to meet these expectations – provided that the right materials are used. For the placement of veneers the PANAVIA™ Veneer LC is precisely what you need.



### TWIST™ DIA for Zirconia

TWIST™ DIA for Zirconia has an innovative shape with flexible polishing spirals offering various application benefits to the dentist for outstanding polishing results in the context of intra-oral adjustments or maintenance measures.



### BENEFITS

Wide range of indications (including adhesion bridges)

Easy application: No separate etching, priming and bonding required

Easy excess removal

### BENEFITS

Innovative curing technology

Optimized handling

High esthetics

### BENEFITS

Polishes all types of tooth shaped surfaces made of zirconia

Highly suitable for occlusal surfaces

Shape and contour of zirconia restoration is maintained

Sterilisable, reusable and economically efficient