

KATANA™ Zirconia

YML *Yttria Multi Layered*

UTML *Ultra Translucent Multi Layered*

STML *Super Translucent Multi Layered*

HTML PLUS *High Translucent Multi Layered*

HT *High Translucent*



CERABIEN

Zirconia Finishing Solutions

CERABIEN™ ZR
FC Paste Stain & Glazes

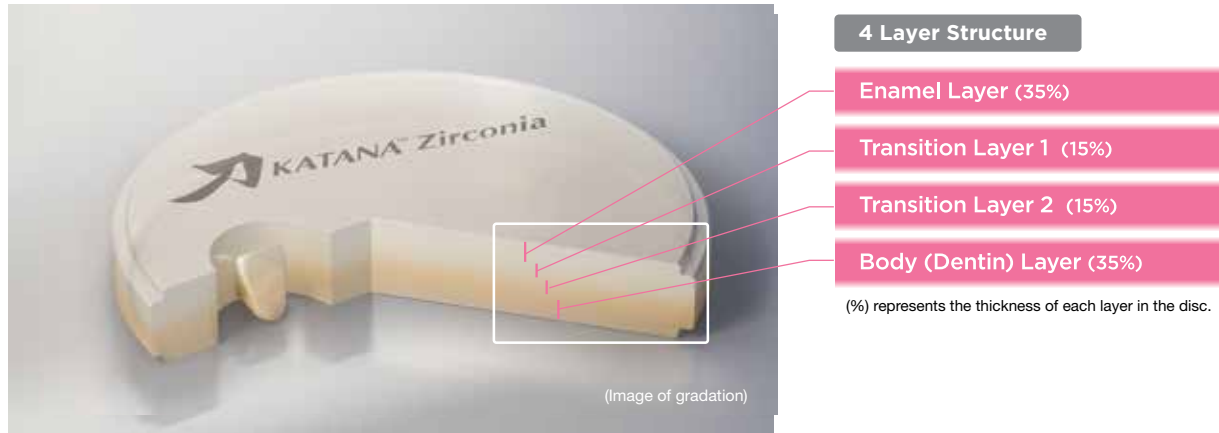




High Esthetic Potential for Zirconia Dental Restorations*

Introducing the KATANA™ series of high translucent multi layered YML, HTML PLUS, superior translucent multi layered STML, and ultra translucent multi layered UTML, ideal for efficient esthetic anterior restorations.

*Comparison with our conventional products.



54-minute and 90-minute Sintering for Single Restorations

KATANA™ Zirconia delivers unparalleled flexibility and speed through its advanced proprietary technology. While the standard sintering time is approximately 7 hours, KATANA™ Zirconia enables high-speed sintering in just 54 or 90 minutes — for up to 3-unit bridges.

This unique feature combines outstanding quality with exceptional velocity, setting KATANA™ Zirconia apart from all competitive products. Despite the accelerated process, it maintains superior translucency and mechanical strength, ensuring premium results without compromise.

YML / UTML / STML / HTML PLUS Sintering Cycles

	Temp.1	Rate of Temp. Increase °C/°F min	Temp.2	Rate of Temp. Increase °C/°F min	Temp.3	Rate of Temp. Increase °C/°F min	Temp.4	Hold Time	Rate of Temp. Decrease °C/°F min	Temp.5
54-minute	Room Temp.	120°C/216°F	1450°C/2642°F	10°C/18°F	1600°C/2912°F	-	-	20 min.	-120°C/216°F	800°C/1472°F
90-minute	Room Temp.	50°C/90°F	1400°C/2552°F	4°C/7°F	1500°C/2732°F	10°C/18°F	1560°C/2840°F	16 min.	-50°C/90°F	800°C/1472°F
7-hour	Room Temp.	10°C/18°F	1550°C/2822°F	-	-	-	-	2-hour	-10°C/18°F	RT.

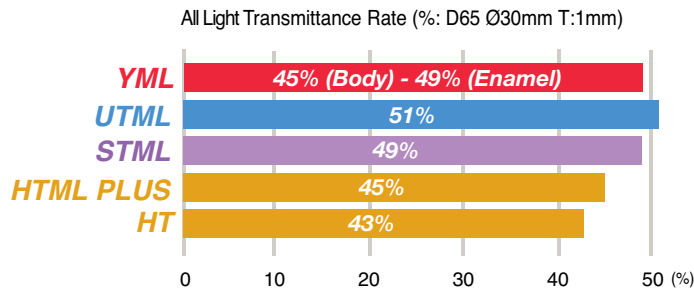
The above sintering recommendations represent only a guideline, depending on each individual furnace and conditions, some adjustments might be necessary. If the 54- or 90-minute sintering program is not programmable in your furnace, it is not possible to set the furnace according to one of these schedules.



Extended Shade Selection

	Series	Shade									Size (Diameter/Thickness)
	Multi Layered	YML	NW	A1	A2	A3	A3.5	A4	B1	B2	B3
		C1	C2	C3	D2	D3					
UTML		A1	A2	A3	A3.5	A4	B1	B2	B3	B4	98.5mm/ 14, 18mm
		C1	C2	C3	C4	D2	D3	D4			
		ENW	EA1	EA2	EA3						
STML	NW	A1	A2	A3	A3.5	A4	B1	B2	B3	98.5mm/ 14, 18, 22mm	
	C1	C2	C3	D2	D3						
HTML PLUS	NW	A1	A2	A3	A3.5	A4	B1	B2	B3	98.5mm/ 14, 18, 22mm	
	C1	C2	C3	D2	D3						
Mono-Chromatic	HT	HT10	HT12	HT13						98.5mm/ 10, 14, 18, 22, 26mm	

Translucency (raw zirconia material)



Mechanical Properties

Flexural Strength (MPa)

750 - 1100MPa
557 MPa
748 MPa
1150 MPa
1125 MPa

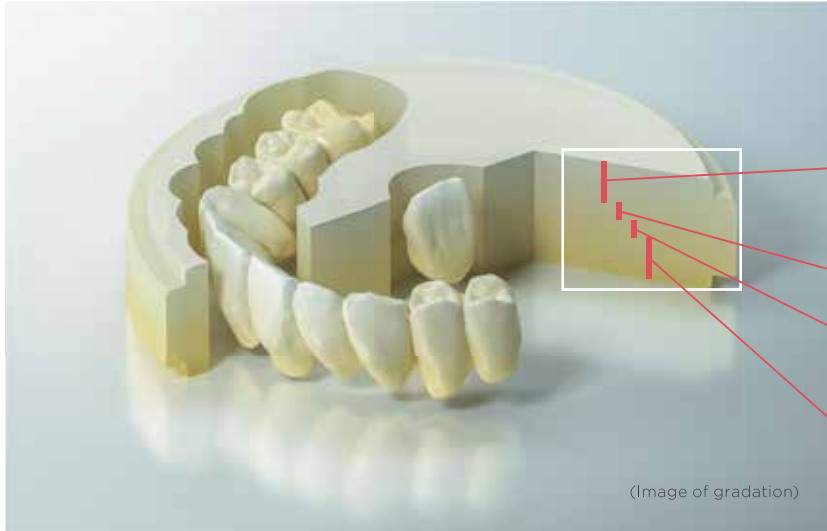
Measurement Conditions
 Wavelength of light: 700nm
 Thickness of sample: 0.5mm

Measurement Conditions
 ISO 6872: 2015 (Three-point bending test)
 Distance: 30mm
 Sample size: 40mm x 4mm x 3mm

Data Source: Kuraray Noritake Dental Inc. The numerical value varies according to the conditions.

YML Yttria Multi Layered

KATANA™ Zirconia YML is redefining zirconia in esthetic dentistry. This product is characterized by a unique raw material combination of highly translucent zirconia and high strength, integrated by advanced manufacturing technology.



(Image of gradation)

Layer	Flexural Strength* ¹	Translucency* ²
Enamel (35%)	750 MPa	49%
Body 1 (15%)	1000 MPa	47%
Body 2 (15%)	1100 MPa	45%
Body 3 (35%)	1100 MPa	45%

Percentage is the thickness of each in a disc

Data Source: Kuraray Noritake Dental Inc.
The numerical value varies according to the conditions.

Measurement Conditions: Evaluated by base material (white color)
*1 According to ISO 6872: 2015, Sample Size: 3 x 4 x 40mm
*2 All Light Transmittance, Illuminant: D65, Thickness of Sample: 1.0mm

KATANA™ Zirconia YML FOR 90-MINUTE SINTERING



KATANA™ Zirconia YML displays superior optical properties after 90-minute sintering as compared to discs of major competitors*.

*This sintering program is not recommended for competitors' zirconia discs.

Versatility of Application Range

Expect exceptional design flexibility - from veneers to full-arch restorations.



- Laminate Veneer
- Inlay, Onlay
- Anterior / Posterior Crown
- Long-span Bridge
- Framework

Revolutionary All-In-One Disc Design



Based on KATANA™ Zirconia YML A3 with CERABIEN™ ZR FC Paste Stain
Photo Courtesy of DT Marco Stoppaccioli - L'Aquila

Features

FAST PROCESSING

1

ALL-IN-ONE SOLUTION

2

SIMPLE ESTHETICS

3

CONTROLLED FIRING DEFORMATION

4

Benefits

High-speed sintering (54- & 90-minute) offers completely new possibilities. Waiting time is reduced to a minimum. For re-make and rush cases, it is now possible to finish the work easily within one day. In addition, the minimized over-night-sintering cycles enable **shorter delivery time** to increase your business efficiency.

Due to the high translucency and high strength combined within one disc, the entire indication spectrum can be covered. This **minimizes your inventory** of different zirconia discs.

A seamless multi layered technology eliminates visible transition lines, emphasizes natural color and translucency, and ensures a simplified, **time-saving** procedure.

Improving the fitting accuracy of restorations after the final sintering process reduces risk of re-manufacturing, an added benefit for dental labs.
No wasted time or materials.

UTML *Ultra Translucent Multi Layered*

UTML has the most translucency among the KATANA™ Zirconia series, and is recommended for fabrication of anterior crowns and laminate veneers. Two different shade types are available: Standard Shade and Enamel Shade.

Translucency: 51%
Strength: 557 MPa

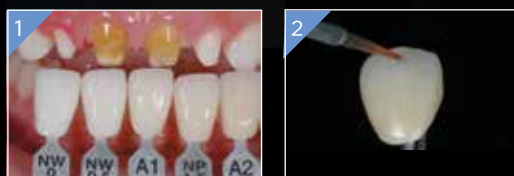
Concept of Color and Translucency

<p>Standard Shade (A1 - D4)</p> <p>Translucency</p> <p>High translucency through all the disc layers.</p> <p>Color</p> <p>Color of shade guide*</p>		<p>Enamel Shade (ENW, EA1, EA2 & EA3)</p> <p>Translucency</p> <p>High translucency through all the disc layers.</p> <p>Color</p> <p>Reduced chroma from incisal to the middle layer (1) part</p>
<p>Color and translucency of the layers after sintering (Image of gradation)</p>		

*VITA Classical Shade Guide

<p>Example of Staining</p>	<p>CERABIEN™ ZR FC Paste Stain</p>	<p>By applying external stains, the translucency is more clearly enhanced. The Enamel Shade version has reduced color intensity in one half of the disk from the incisal edge ((1) part), giving you the ability to characterize and express color variations with stains.</p>
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Monolithic Anterior Crowns made from KATANA™ Zirconia UTML



1. Shade taking
2. Applying the glaze and the stain
3. Checking the restorations on the model
4. Seating in the mouth

Clinical cases contributed by Keiko Okubo, DDS,
Restorations fabricated by Kazunobu Yamada, RDT

STML *Super Translucent Multi Layered*

KATANA™ Zirconia STML has a well-balanced combination of translucency, mechanical properties and masking effect in the cervical area which can obtain the desired shades to accommodate the variety found in prepared tooth conditions.

Translucency: 49%
Strength: 748MPa

Concept of Color and Translucency

Standard Shade

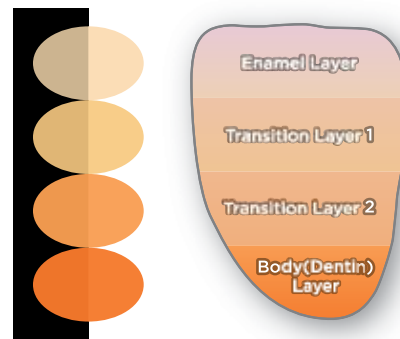
Translucency

Translucency is gradually decreased from the incisal to the cervical region to increase the masking level in the cervical region.

Color

Color of shade guide*

*VITA Classical Shade Guide



Color and translucency of the layers after sintering (Image of gradation)

Range of Masking Level

Abutment color examples

HTML PLUS	
STML	
UTML	

- Select a shade tab that corresponds to the final desired color.
- Select a shade tab one level brighter than the final color (it will be necessary to complete using stains).

Monolithic Posterior Crown made with KATANA™ Zirconia STML*

* with staining



1. Preparation
2. Wax up
3. Checking the restoration on the model
4. Seating in the mouth
(Left: Buccal view, Right: Occlusal view)

HTML PLUS *High Translucent Multi Layered*

With the highest mechanical strength, KATANA™ Zirconia HTML PLUS features veneering ceramic on top and a natural color gradient. Use KATANA™ Zirconia HTML PLUS as a dentin-like base, suitable for full-contour crowns and bridges.

Translucency: 45%
Strength: 1,150MPa

Concept of Color and Translucency

Standard Shade

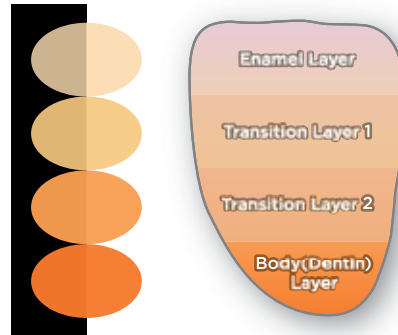
Translucency

Translucency is gradually decreased from the incisal to the cervical region to increase the masking level in the cervical region.

Color

Color of shade guide*

*VITA Classical Shade Guide



Color and translucency of the layers after sintering (Image of gradation)

Range of Masking Level

Abutment color examples

HTML PLUS	
STML	
UTML	

- Select a shade tab that corresponds to the final desired color.
- Select a shade tab one level brighter than the final color (it will be necessary to complete using stains).

KATANA™ HTML PLUS Sample Case



Comparisons of Translucency and Color



Achieve stunning esthetic restorations with KATANA™ Zirconia HT.

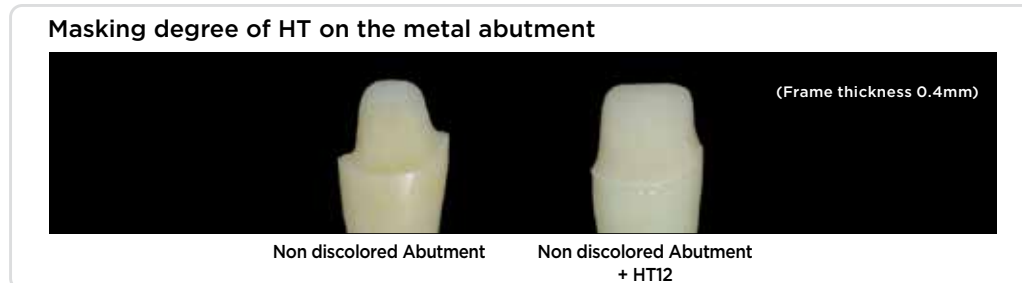
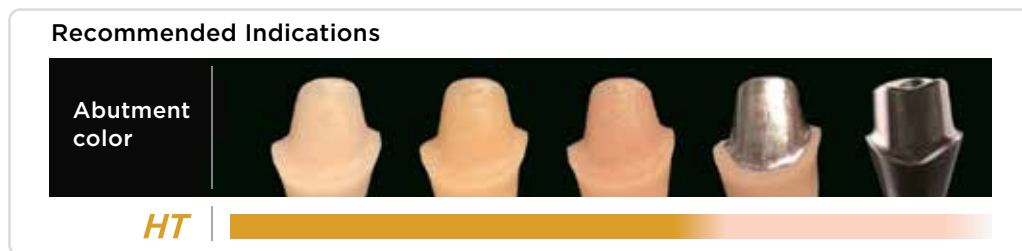
KATANA™ Zirconia HT delivers exceptional esthetic results with its 43% translucency, making it ideal for creating dentin-like frameworks. Perfect for both Porcelain-Fused Zirconia and Full-Contour Zirconia restorations, it provides versatility and reliability. Available in 10, 14, 18, 22, and 26mm sizes with three shade options.

- HT 10: Universal shade (white)
- HT 12: A1 - A1.5 / B1 - B2
- HT 13: A2 - A3

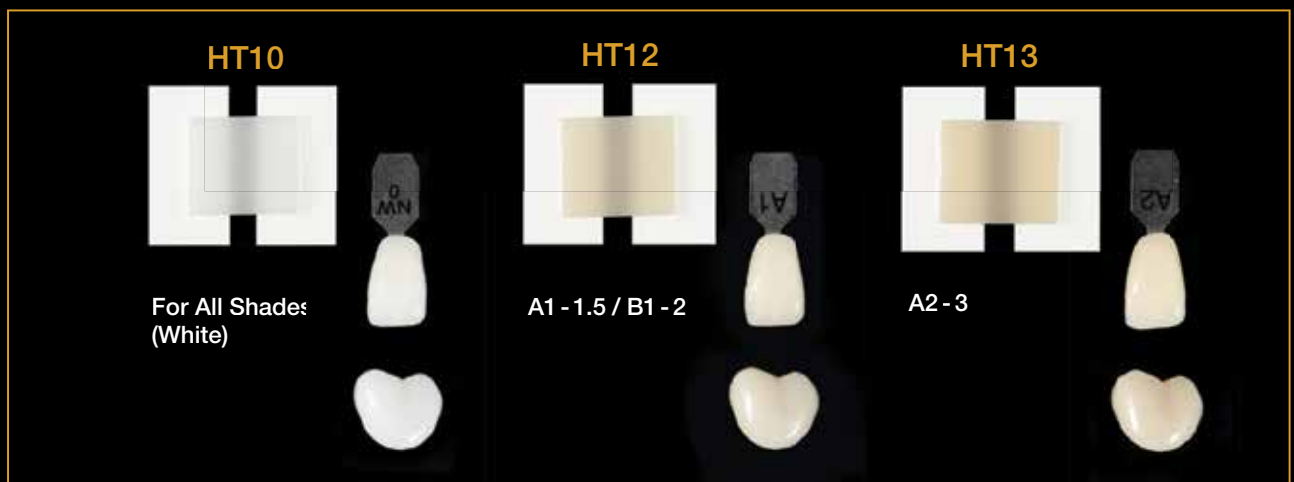
Translucency: 43%
Strength: 1,125MPa

The Right Framework Translucency

By properly using HT, you can accurately utilize or mask various abutment colors.



HT Color Guide



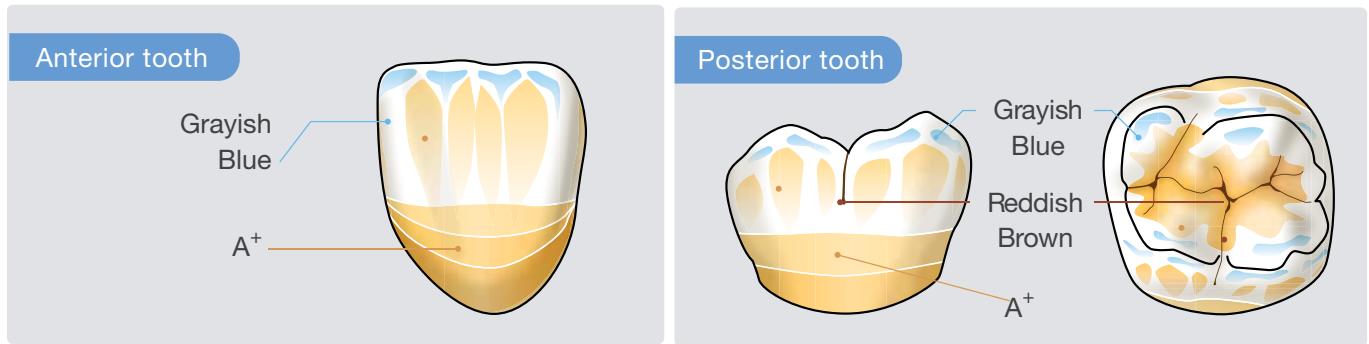


Effortless customization with CZR FC Paste Stain

Enhance your Full-Zirconia restorations with FC Paste Stain from the CERABIEN™ ZR line. This surface stain enables easy and precise characterization, offering 27 shades to achieve a wide range of lifelike results.

Examples of The Use of Stain

The full complement of blue and gray shades (Light Gray, Dark Gray, Grayish Blue, & Blue) makes it possible to easily reproduce blue-grayish transparency effects for the incisal area. Two types of glaze (Glaze & Clear Glaze) make it easier to control the appearance of transparency across the entire crown.



The FC Paste Stain Color Composition List / Product Number

Category	Color	Product Number
Translucent	Glaze	104-5851KA
	Clear Glaze	104-5861KA
Enamel	Light Gray	104-5611KA
	Dark Gray	104-5621KA
	Grayish Blue	104-5631KA
	Blue	104-5641KA
Dentin	Cervical 1	104-5701KA
	Cervical 2	104-5711KA
	Cervical 3	104-5721KA
	A+	104-5781KA
	B+	104-5791KA
	C+	104-5801KA
	D+	104-5811KA
Enhancement	White	104-5821KA
	Mamelon Orange 1	104-5681KA
	Mamelon Orange 2	104-5691KA
	Earth Brown	104-5731KA
	Reddish Brown	104-5741KA
Adjustment	Value	104-5831KA
	Black	104-5601KA
	Green 1	104-5651KA
	Green 2	104-5661KA
	Yellow	104-5671KA
	Salmon Pink	104-5751KA
	Pink	104-5761KA
Red	104-5771KA	
Fluoro	104-5841KA	

Baking Schedule for The Fabrication of Full-Zirconia Restorations

FC Paste Stain can be baked at 750°C during the fabrication of full-zirconia restorations. This is a lower temperature than that used for conventional external stains.

Dry-out Time		Predrying Temperature		Start Vacuum		Heat Rate		Vacuum Level	Release Vacuum		High Temperature		Hold Time (in the air)	Cool Time
min.	°C	°F	°C	°F	°C/min.	°F/min.	kPa	°C	°F	°C	°F	min.	min.	
5	500	932	600	1112	45	81	96*	750	1382	750	1382	1	4	

*96kPa=72cmHg



CERABIEN™ ZR
FC Paste Stain Clear Glaze 104-5861KA

The Zirconia Glaze That Does It All!

Achieve the highest level of sheen or luster with CZR FC Glaze, with minimal application or layer thickness.

Left: **After Sintering** – Before FC Paste Stain Clear Glaze Applied
 Right: **FC Paste Stain Clear Glaze Applied** – Upon completion

Zirconia Finishing Solution Kit



CERABIEN™ ZR
FC Paste Stain Kit 104-5590KA

- 5g each - Glaze, Clear Glaze
- 3g each - Light Gray, Dark Gray, Grayish Blue, Blue
- Cervical 1, Cervical 2, Cervical 3, A+, B+, C+, D+, White, Mamelon Orange 1, Mamelon Orange 2, Earth Brown, Reddish Brown, Value, Black, Green 1, Green 2, Yellow, Salmon Pink, Pink, Red, Fluoro
- Color Guide
- ES Liquid



CERABIEN™ ZR
FC Paste Stain Basic Kit 104-5870KA

- 5g each - Glaze, Clear Glaze
- 3g each - Dark Gray, Grayish Blue, Cervical 2, Earth Brown, Salmon Pink, A+, White
- Color Guide
- ES Liquid



Pearl Surface Z 20g 221-0769KA

Designed for polishing zirconia and porcelain, Pearl Surface Z adds a natural luster to the surface without altering the subtleties in the texture. It is also suitable for polishing hard resin and denture-base acrylic resin.

PANAVIA™ SA Cement Universal



Designed for all restorations without primers, PANAVIA™ provides superior luting for all hybrid cases. Titanium to zirconia bonding with no need for primers - this is the ideal lab cement.

Legendary Adhesive Technology from Kuraray



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Before using this product, read the Instructions For Use supplied.

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