

FREQUENTLY ASKED QUESTIONS

CERABIEN™ MiLai



What is CERABIEN™ MiLai?

CERABIEN™ MiLai is a dental porcelain designed primarily for the micro-layering technique. It can be used on both zirconia and lithium disilicate frameworks.

Why can CERABIEN™ MiLai be used on both zirconia and lithium disilicate?

CERABIEN™ MiLai combines a low firing temperature with an optimised coefficient of thermal expansion (CTE). This allows the material to be used on zirconia as well as lithium disilicate restorations with a CTE within the specified range of $9.5 \sim 11.0 \times 10^{-6}/K$ (50~500 °C). As a result, a single porcelain system can be used for different restorative materials.

What is the micro-layering technique?

This is a technique to reduce the thickness of porcelain layers on a restoration, by using a framework with almost final shape, such as cut back design framework. This type of framework can strengthen the restoration and prevent the porcelain layer from chipping or cracking. Compared to full contour restorations, the micro-layering technique produces more pleasing aesthetics, owing to a thin layer of porcelain on the framework which replicates the characteristics of the natural tooth.

What are the components of CERABIEN™ MiLai?

The complete line-up consists of 15 internal stains and 36 porcelains designed to fulfill the needs of dental technicians preferring this simplified, efficient and economic finishing approach. Different kits are available as an answer to user-specific needs.

What is the content of the different kits?

CERABIEN™ MiLai INTERNAL STAIN KIT: This kit contains the complete set of 15 internal stains. It is ideal for fans of the internal stain technique.

CERABIEN™ MiLai MICRO-LAYERING KIT: This kit contains a selection of 16 porcelains designed primarily for the reproduction of enamel and soft tissue. It is designed for users seeking a simple and efficient micro-layering workflow.

CERABIEN™ MiLai ADVANCED LAYERING KIT: The advanced kit complements the Micro-Layering Kit. It contains 20 additional porcelain shades (including Opacious Body and Body shades to reproduce the appearance of dentin) and is made for users who wish to further expand their layering possibilities and characterisation options.

CERABIEN™ MiLai POWDER STARTER KIT: The starter kit contains a selection of seven porcelains and five Internal Stains. It provides everything needed for a smooth introduction to the micro-layering technique.

Is the shade line-up of CERABIEN™ MiLai sufficient to handle a wide range of clinical cases?

Yes. CERABIEN™ MiLai is not only easy to handle, but also offers a portfolio suitable for a wide range of patients, indications and personal preferences. Kuraray Noritake Dental Inc. developed CERABIEN™ MiLai based on feedback and suggestions from key opinion leaders (KOLs) in several countries to meet users' needs.

What is the recommended porcelain thickness?

CERABIEN™ MiLai was developed for micro-layering on minimally cut-back restorations. Typically, the thickness of the porcelain layer is between 0.2 and 0.8 mm. However, the porcelain layer should not be thicker than the framework underneath. For example, if the framework thickness is 0.5 mm, the porcelain layer should be less than 0.5 mm. Thin layers help achieve the intended optical effects while supporting the micro-layering concept.

Can I mix different CERABIEN™ MiLai shades?

Yes. Mixing with other CERABIEN™ MiLai porcelain shades is possible for additional shade effects.

Can I mix CERABIEN™ MiLai and CERABIEN™ ZR porcelains?

No. Do not mix different porcelains, as this may cause cracking or delamination.

How to create shades that are not available in the Opacious Body/Body line-up by mixing existing ones?

By following the mixing recipes shown in the table below, you can achieve shades equivalent to NW0, NW0.5, A2, B2, and C1. However, please note that these mixed shades do not exactly replicate the tones of the same-named shades in CERABIEN™ ZR.

Target shade	Mixing Ratio
NW0	XW : B1 = 2 : 1
NW0.5	XW : A1 = 2 : 1
A2	A3 : A1 = 2 : 1
B2	B3 : B1 = 1 : 1
C1	C2 : XW = 2 : 1

Can I apply CERABIEN™ MiLai Internal Stains directly to zirconia or lithium disilicate frameworks?

Yes. CERABIEN™ MiLai Internal Stains can be applied directly to zirconia or lithium disilicate frameworks (the material should have a CTE value within $9.5\sim 11.0\times 10^{-6}/K$ ($50\sim 500\text{ }^{\circ}C$)). Use bright, colourless and transparent shades in areas where colouring is not required.

Can I use CERABIEN™ MiLai with dental porcelains from other manufacturers?

No. Do not use porcelains from other manufacturers, as this may cause cracking or delamination.

Can I apply CERABIEN™ MiLai porcelains or internal stains after building up CERABIEN™ ZR or CZR PRESS LF?

Yes. However, the CERABIEN™ MiLai layer should be fired after the CERABIEN™ ZR or CZR PRESS LF layer, as the firing schedules differ between the porcelains. For detailed information, refer to the Instructions for Use supplied with the product.

Can I apply CERABIEN™ MiLai to dental zirconia from other manufacturers?

Yes. CERABIEN™ MiLai can be used with zirconia from other manufacturers, provided the zirconia does not contain CeO_2 (ceria/cerium oxide). Test firing is recommended to optimise the settings of your furnace. For detailed information, refer to the Instructions for Use supplied with the product.

What are the mechanical properties of CERABIEN™ MiLai?

The flexural strength of CERABIEN™ MiLai is 95 MPa.

Can I use CERABIEN™ MiLai to add a contact area on the occlusal or approximal surface?

Yes, it may be used for this purpose.

Should I perform wash baking?

Yes. Wash baking improves the bond strength between the porcelain and zirconia or lithium disilicate frameworks.

Some CERABIEN™ MiLai shade names are the same as those in CERABIEN™ ZR or CZR PRESS LF.

Yes. The shades are adjusted to the CERABIEN™ shade concept and are designed to be consistent with the corresponding CERABIEN™ shades.

Do CERABIEN™ MiLai porcelains or internal stains have fluorescent properties?

Porcelains used in the cervical area have fluorescent properties. Porcelains used in the gingival area, including those with "Tissue" in the name, do not have fluorescent properties because natural gingiva is not fluorescent.

Can I use any dedicated liquid to mix CERABIEN™ MiLai?

Yes. Use LF Liquid or distilled water for CERABIEN™ MiLai porcelains, and IS Liquid or distilled water for CERABIEN™ MiLai Internal Stains.

Do not use CERABIEN™ ZR Forming Liquid, Meister Liquid or liquids from other manufacturers.

Can I apply CERABIEN™ MiLai to any lithium disilicate material?

CERABIEN™ MiLai can be used with lithium disilicate materials that have a coefficient of thermal expansion (CTE) within the range of $9.5 \sim 11.0 \times 10^{-6}/^{\circ}\text{C}$ ($50^{\circ}\text{C} \sim 500^{\circ}\text{C}$).

The recommended framework shade depends on the abutment colour, target shade and desired translucency. For detailed information, refer to the Instructions for Use supplied with the lithium disilicate material.

What is Value Liner?

Value Liner is used to control and increase the value of the framework, especially when working on lithium disilicate restorations. Due to the translucency of lithium disilicate, the framework shade can strongly influence the final appearance of the restoration. Applying a thin layer of Value Liner helps create a brighter and more controlled base before applying CERABIEN™ MiLai porcelains or Internal Stains. Its opacity is similar to CERABIEN™ ZR Opacious Body.

For more detailed application guidance, please refer to the CERABIEN™ MiLai Technical Guide.

CERABIEN™ MiLai is applied in thinner layers compared to porcelain for traditional layering techniques such as CERABIEN™ ZR. How does this affect opacity management?

The opacity of CERABIEN™ MiLai is specialised for the micro-layering technique. The porcelains – especially Opacious Body and Body shades – are slightly more saturated and opaquer to offer the desired masking and shade matching potential even with minimal layer thickness.

What are the firing temperatures of CERABIEN™ MiLai?

Firing temperatures differ depending on the type of porcelain used. All porcelains applied in the tooth region (coronal part of the restoration) have a recommended firing temperature of 740 °C / 1364 °F. The firing temperature of the tissue shades of CERABIEN™ MiLai porcelains (applied in the gingival area of the restoration) is 20 °C lower, i. e. 720 °C / 1328 °F. This leads to a desired effect: The gingival area becomes smooth and shiny, while the crown area retains its surface characteristics.

What are the benefits of the low firing temperatures?

The low firing temperature of CERABIEN™ MiLai (approximately 740 °C) enables compatibility with a broad range of restorative materials, including zirconia and lithium disilicate. It also helps simplify inventory management by allowing a single porcelain system to be used on different framework materials. In addition, the low firing temperature reduces the risk of framework distortion during the final firing procedures, particularly for lithium disilicate restorations.

Can CERABIEN™ MiLai be fired multiple times?

Yes. CERABIEN™ MiLai is based on synthetic feldspathic porcelain technology developed by Noritake Dental Supply Co., Limited. Multiple firing cycles are possible without affecting the material's properties. This contributes to consistent handling characteristics and predictable results throughout the production process.

I fired the restoration after building up CERABIEN™ MiLai, but did not achieve good results. Why?

Furnace performance may be unstable at lower temperatures. If necessary, adjust the firing parameters and repeat the procedure. When fired correctly, the restoration surface should exhibit a slight lustre.

The porcelain layer of my restoration shows some discolouration after firing. How can I prevent this?

This product is a low-temperature baking porcelain. To prevent discolouration of the porcelain, observe the following conditions:

- If tissue paper fibers get incorporated into the porcelain slurry during water sorption in the condensation procedure, the fibers will not burn off completely. After drying, check to make sure that no residual tissue fibers remain before baking.
- Always use freshly mixed porcelain.

Can I use the same firing schedule regardless of restoration size?

No. The correct baking temperature for this product varies with the size of the restorations to be baked. For long-span bridges, the firing schedule should be adjusted by lowering the heat rate, increasing the peak temperature or extending the holding time.

What should I use to add characterisation to the surface of the restoration?

Use CERABIEN™ ZR FC Paste Stain to add fine characterisation to the restoration surface.

Can I apply CERABIEN™ MiLai internal stain to characterise the restoration surface as well?

No. Please use CERABIEN™ ZR FC Paste Stain as a surface stain only.

Does the existing line-up include any new shades compared to the CERABIEN™ ZR line-up?

Yes. The new shades include Value Liner 1 and Value Liner 2, OB, XW, XWB, Fluoro Mamelon 1, Fluoro Mamelon 2 in the porcelain range, and Blue, Yellow, Tissue Pink and Tissue Red in the internal stain range.

How do I use Tissue Pink?

Tissue Pink is a vivid pink shade that can be used to reproduce healthy gingiva. This shade does not exhibit the same fluorescent properties as other shades because natural gingiva is not fluorescent.

Tissue Pink can be used in the gingival area as well as a base shade for lighter gingival regions. It can also be used in the cervical area when mixed with Fluoro.

How do I use Tissue Red?

Tissue Red is the same colour as the Red shade in the CERABIEN™ ZR internal stain range. It can be used to reproduce darker gingival areas, such as the interdental root region.

A wide range of gingival shades can be created by mixing Tissue Red with Tissue Pink. It can also be used in the cervical area when mixed with Fluoro.

What is the difference between each tissue shade?

The colour tone is equivalent to that of CERABIEN™ ZR Tissue shades. Shades with the same name have almost the same colour tone. However, due to differences in glass materials, they are not exactly the same, so it is recommended to check the colour tone during test baking before use.

What is the difference between Bright and Fluoro?

Bright is used to adjust chroma by mixing with other shades. Fluoro is used to reproduce strong fluorescence. Both materials are transparent after baking.

What is the difference between E₂ and Silky E₂?

E₂ is used for VITA shades, and Silky E₂ is used for bleaching shades; Silky E₂ has a milkier white colour than E₂.

What is the difference between LT_x and LT₀?

LT_x is more opalescent than LT₀.

Which are the bleaching shades?

Please use ELT₁ and ELT₂. Please use OBXW and XWB when using opacious body and body.

How to finish CERABIEN™ MiLai restorations? Is polishing an option?

CERABIEN™ MiLai restorations may be finished using either a self-glazing procedure or a conventional glazing technique.

For self-glazing, the restoration is fine-polished (e.g. with PEARL Surface C) and subsequently fired according to the prescribed firing schedule. This procedure creates a natural gloss while maintaining the anatomical details of the restoration. Alternatively, CERABIEN™ ZR FC Paste Stain Glaze or Clear Glaze may be applied and fixed by firing. These materials allow additional surface characterisation and can create a glossier surface appearance.

How should I select a framework shade to reproduce a target shade?

In general, the value of a restoration decreases and the chroma increases when porcelains or internal stains are applied to a framework. For this reason, we recommend selecting a framework shade that is at least one shade brighter than the desired final result.

Due to the high translucency of lithium disilicate frameworks, it may be necessary to apply Value Liner shades of CERABIEN™ MiLai to control opacity.

Please note that the properties of lithium disilicate materials vary between manufacturers. Refer to the Instructions for Use supplied with the material or contact the manufacturer for further guidance.



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- Before using this product, be sure to read the Instructions for Use supplied with the product.
- The specifications and appearance of the product are subject to change without notice.
- Printed color can be slightly different from actual color.
- Read the IFU (Instructions For Use) before the procedure.

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