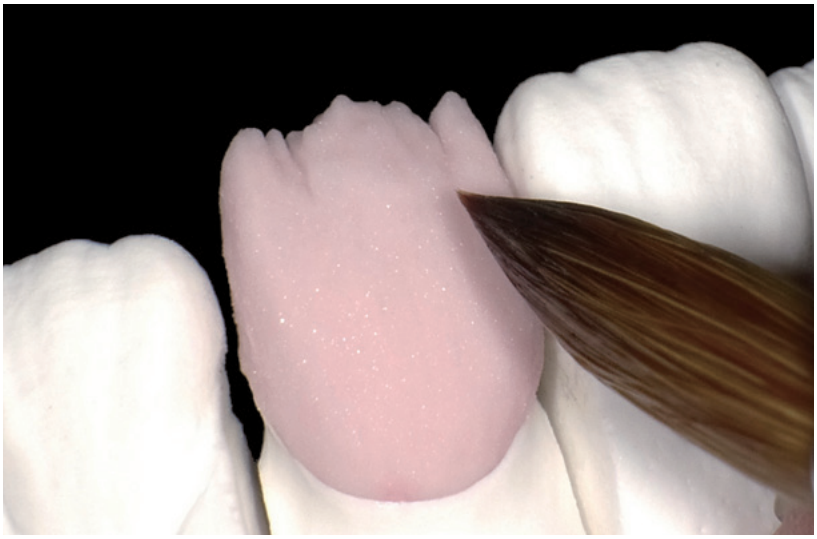
VINTAGE LD



Advanced product information

SHOFU

Introduction

Thank you for purchasing VINTAGE LD. This porcelain system combines aesthetic finesse with easy handling.

Before use, please read this Advanced Product Information carefully to obtain the maximum benefit from this product. Kindly keep this document for future reference.
VINTAGE LD is a low-fusing, leucite-reinforced silicate ceramic, designed to reproduce the light-optical effects of natural teeth thanks to its microfine particle structure.

The high versatility of VINTAGE LD allows you to create lifelike restorations in full veneering or cut-back layering techniques, in combination with both lithium disilicate and zirconia frameworks.

We hope you enjoy using this product and wish you great success.

Contents

1. VINTAGE LD

1-1. Indications

- Veneering of suitable dental frameworks made of
  – Stabilised zirconia with a thermal expansion of approx. 10.6 x 10^{-6} x K^{-1} (25 - 500 °C) or
  – Lithium disilicate with a thermal expansion of approx. 9.7 - 10.3 x 10^{-6} x K^{-1} (25 - 500 °C)

- The frameworks should have an anatomically reduced shape, provide sufficient stability, and permit a uniform porcelain layer thickness of up to 1.5-2 mm. Edges and tips should be rounded. Any missing substance should be replaced using the framework material.

1-2. Contraindications

- Combination with materials that are not part of the product system described and/or with materials from other manufacturers.

- Veneering of non-indicated framework materials.

- Sharp corners and edges on frameworks, or framework shapes that are not anatomically reduced.

- Dental ceramic veneers and all-ceramic restorations made of glass ceramics are not suitable for patients with bruxism or parafunctions.

2. Notes

2-1. Important notes on use

- For use by qualified professionals only.
- Use this product only in a clean working environment! Contamination of pastes, auxiliary materials (waxes) or equipment (mixing plate, preheating furnace) by residues from alloy processing, especially CrCo alloys, may lead to discolouration of the porcelain.
- The framework or veneered framework should be thoroughly cleaned with steam or under running water with a brush before each porcelain application.
- There are different types of porcelain furnaces on the market, so firing conditions may vary. It is the customer's responsibility to check and consider these conditions! The firing temperatures specified in this document are only GUIDELINES.

2-2. Precautions

- If you experience any inflammation or other allergic reactions when using this product, immediately discontinue use and seek medical advice.
- Grinding dust from this product must not get into the eyes. If this does happen, immediately rinse the eyes with plenty of water and seek medical advice.
- Wear safety glasses or the like while grinding and polishing this product to avoid eye damage.
- Use a local dust extractor, a dust mask or the like while grinding this product for protection against harmful dust.
- Do not expose VINTAGE Mixing Liquid-HC to high temperatures, e.g. near a radiator. Keep away from direct sunlight.
- This product is intended for use by dental professionals only.

3. Physical properties

3-1. Storage

- Store at a temperature of 12-38°C and normal humidity of 40-60 %. Avoid high temperatures and high humidity.
- Keep away from direct sunlight.
- Tightly replace the cap of VINTAGE Mixing Liquid-HC after use.

3-2. Specifications

Description	Aluminosilicate glass ceramic
Product specification	Body porcelain
Linear thermal expansion CTE (25-500°C)	$9.0 \pm 0.5 \times 10^{-6} K^{-1}$
Glass transition point	510 °C ± 20 °C
Flexural strength	115 MPa

Classification to DIN EN ISO 6872: Type 1, Class 1

4. Firing data

4-1. Lithium disilicate frameworks

	Drying temp. °C	Drying time min	Preheating time min	Vacuum start °C	Heating rate °C/min	Final temp. °C	Vacuum end °C	Holding time min
Wash	400	3-4	1	450	45	780	780	1
1. Body, Effect, Enamel	400	4-5	1-2	450	45	760-770	760-770	1
2. Body, Effect, Enamel	400	3-5	1-2	450	45	760-770	760-770	1
Glaze	450	3-5	1-2	—	55	750-760	–	1
Correction	400	3-5	1-2	450	55	720	720	1
Correction-Glaze	400	3-5	1-2	450	55	730	730	1

4-2. Zirconia frameworks

	Drying temp. °C	Drying time min	Preheating time min	Vacuum start °C	Heating rate °C/min	Final temp. °C	Vacuum end °C	Holding time min
Wash	400	3-4	1	450	45	780	780	2
1. Body, Effect, Enamel	400	4-5	1-2	450	45	760-770	760-770	2
2. Body, Effect, Enamel	400	3-5	1-2	450	45	760-770	760-770	2
Glaze	450	3-5	1-2	—	55	750-760	–	2
Correction	400	3-5	1-2	450	55	720	720	2
Correction-Glaze	400	3-5	1-2	450	55	730	730	2

NOTE

Optimal firing conditions vary, depending on the design and operating voltage of the porcelain furnace used. It is essential to carry out test firings before firing actual restorations.

5. System components

5-1. System and shades

System		Shades
Opaque Dentin (11 shades)		OD-A1, OD-A2, OD-A3, OD-A3.5, OD-A4, OD-B2, OD-B4, OD-C2, OD-C4, OD-D3, OD-N
Body (17 shades)		A1B, A2B, A3B, A3.5B, A4B, B1B, B2B, B3B, B4B, C1B, C2B, C3B, C4B, D2B, D3B, D4B, W3B
Enamel	Enamel (5 shades)	Opal 56, Opal 57, Opal 58, Opal 59, Opal 60
	Enamel Effect (10 shades)	Opal T, Opal SL, T, BT, PT, GT, YT, OT, AM-Y, T-Glass
Gum (5 shades)		Gum-1, Gum-2, Gum-3, Gum-4, Gum-5
Correction (2 shades)		ADD-ON B, ADD-ON T

Opaque Dentin
The Opaque Dentin porcelains offer the same shades as the Body porcelains, but with slightly higher opacity; this makes them ideal for areas with limited space, e.g. cervical or lingual surfaces of anterior teeth or gingival surfaces of bridges.

Body
The Body porcelains are used to reproduce dentin shades.

Enamel
These porcelains feature a light transmission (opalescence) mimicking that of natural enamel.

Enamel Effect
The translucent Enamel Effect porcelains without opalescence can be used alone or mixed with Enamel porcelains.

Gum
The Gum porcelains allow you to reproduce gingiva colours.

Correction
These porcelains can be used in small amounts for corrections after contouring or self-glazing.

Vintage Mixing Liquid-HC
This mixing liquid gives the porcelains the ideal viscosity for layering.

NOTE
Do not use these products in combination with PFMs, titania and alumina ceramics.

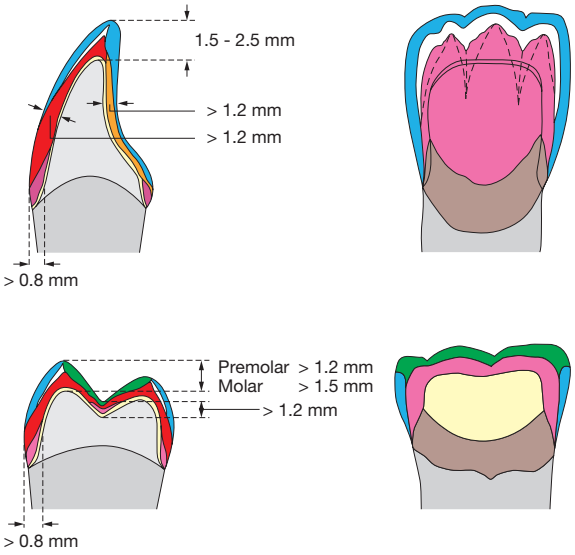
6. Layering systems

6-1. Full veneering

This technique is optimally suited for cases with high aesthetic requirements, especially anterior restorations.

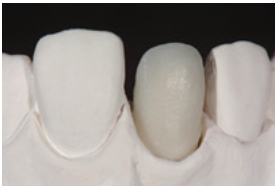
An anatomically reduced framework is made of lithium disilicate or zirconia. In this step, it should be considered that the layer thickness of the subsequent VINTAGE LD porcelain must not exceed 2 mm. Then VINTAGE LD Body and Enamel porcelains are applied and fired.

Layering diagram

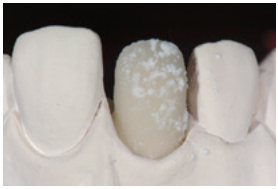


6. Layering systems

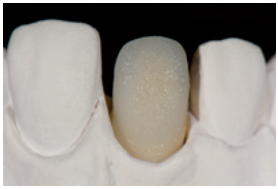
For reliable adhesion of VINTAGE LD porcelain to frameworks, it is advisable to first add a layer of Body or Opaque Dentin in the form of a wash firing or by sprinkling the moistened surface with powder.



Clean the framework by brief sand-blasting with Al_2O_3 at a pressure of approx. 0.1 - 0.2 MPa (1 - 2 bar).

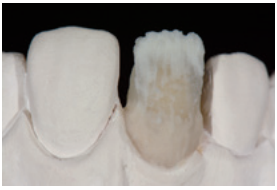


For reliable adhesion, apply and fire a thin layer of Body or Opaque Dentin.

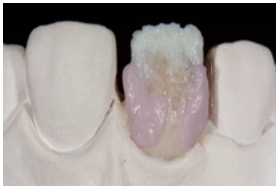


After firing, the surface appears matt.

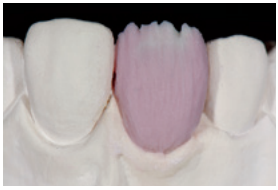
After firing, apply the VINTAGE LD porcelains in the layering technique described.



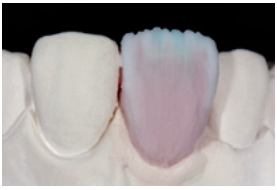
Apply Opaque Dentin to the cervical and incisal surfaces.



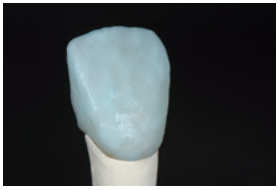
Use Body porcelain for anatomical build-up step by step.



Create mamelons matching the natural teeth.



Opal Translucent or Effect porcelains help to achieve a natural appearance in the incisal area.

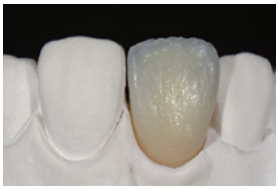


The Enamel layer should be slightly oversized to compensate for firing shrinkage.

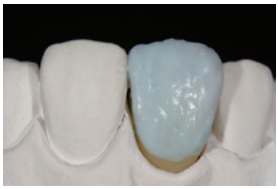
NOTE

- The drying time should be selected based on the size of the restoration to be fired. (Restorations may explode in the furnace if moisture remains inside.)
- The Enamel layer should be slightly oversized to compensate for firing shrinkage.
- Dry surfaces requiring additional material should be brushed with water before application.
- After contouring, replace the restoration onto the model die. If necessary, use Correction porcelain to add any missing material, and then fire the restoration.

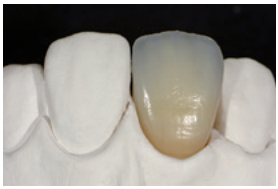
If additional material needs to be built up, apply the required amount of VINTAGE LD porcelain to the pre-fired restoration and perform a second Body firing.



The restoration after the first firing.



Complete the restoration with Opal Enamel porcelain and perform a second Body firing.



Contour the final shape and surface texture using Dura-Green DIA or any other suitable abrasive instruments and silicone polishers.

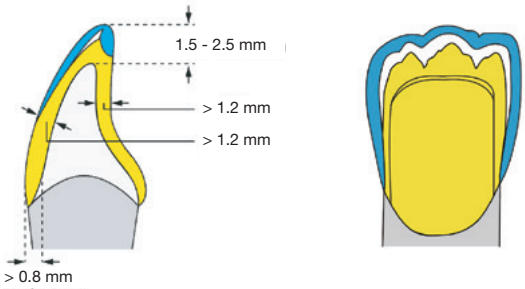
6. Layering systems

6-2. Cut-back technique

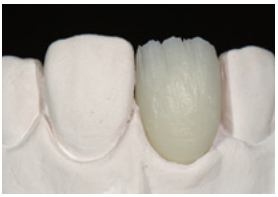
This technique allows you to create highly aesthetic restorations even when there is only little space for the porcelain.

A full-contour restoration is made of lithium disilicate or zirconia and then reduced. Next, VINTAGE LD Enamel porcelains are built up and fired.

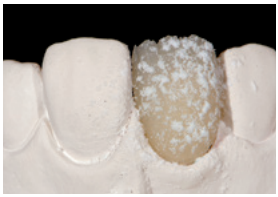
Layering diagram



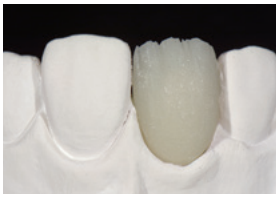
For reliable adhesion (foundation) of VINTAGE LD porcelain to frameworks, it is advisable to first add a layer of Opal-T or Opal Enamel in the form of a wash firing or by sprinkling the moistened surface with powder.



Clean the framework by brief sand-blasting with Al_2O_3 at a pressure of approx. 0.1 - 0.2 MPa (1 - 2 bar).

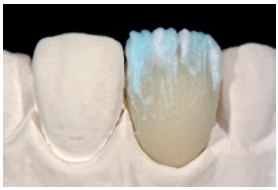


For reliable adhesion, apply and fire a thin layer of Opal-T or Opal Enamel.

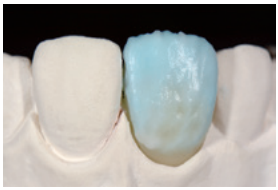


After firing, the surface appears matt.

After firing, apply the VINTAGE LD porcelains in the layering technique described.



Opal Translucent or Effect porcelains help to achieve a natural appearance in the incisal area.

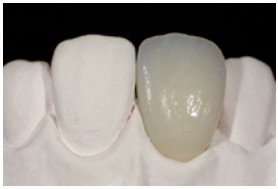


Complete the restoration with Opal Enamel porcelain.

The Enamel layer should be slightly oversized to compensate for firing shrinkage.

NOTE

- The drying time should be selected based on the size of the restoration to be fired. (Restorations may explode in the furnace if moisture remains inside.)
- The Enamel layer should be slightly oversized to compensate for firing shrinkage.
- Dry surfaces requiring additional material should be brushed with water before application.



After correct firing, the surface appears slightly glossy.

Contour the final shape and surface texture using Dura-Green DIA or any other suitable abrasive instruments and silicone polishers.

7. Further processing

7-1. Finishing

- Contour the final shape and surface texture using Dura-Green DIA or any other suitable abrasive instruments.
- Check the occlusion and grind in if necessary.
- Then pre-polish with silicone polishers (CeraMaster Coarse/SoftCut PA).
- Clean the restoration by brief sandblasting with Al_2O_3 at a pressure of approx. 0.1 - 0.2 MPa (1 - 2 bar), followed by treatment with an ultrasonic or steam cleaner.
- Stain and glaze the restoration as described in the following section.

7-2. Staining / Glazing

VINTAGE Art Universal can be used to stain and glaze your restorations. This system of low-fusing, fluorescent stains and glazes allows you to internally and externally modify the shades of all standard dental ceramics, including VINTAGE Prime Press and SHOFU Disk ZR Lucent Supra.

VINTAGE Art Universal makes it very easy to reproduce all natural tooth characteristics with a lifelike appearance.

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