VINTAGE Halo

Verarbeitungsanleitung
Instructions for Use
Mode d'emploi
Instruciones de uso
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Gebruiksaanwijzing
Bruksanvising

MARGIN PORCELAIN

SHOFU®

Margin

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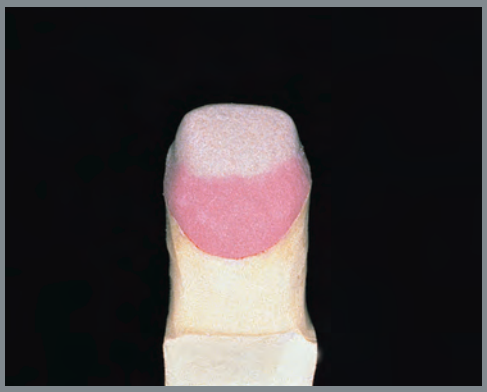

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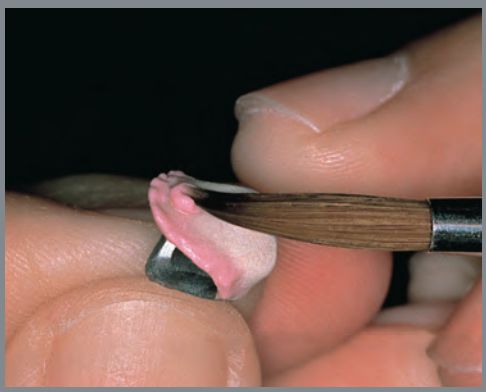

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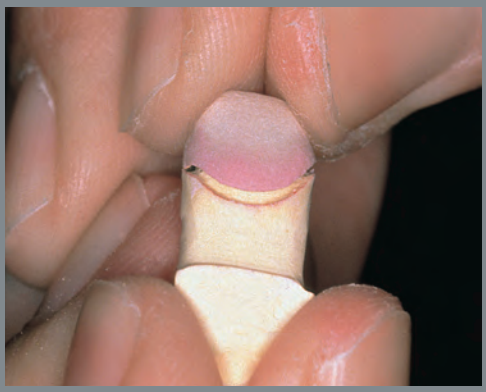

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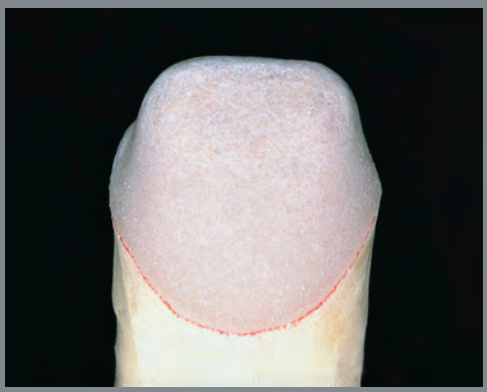

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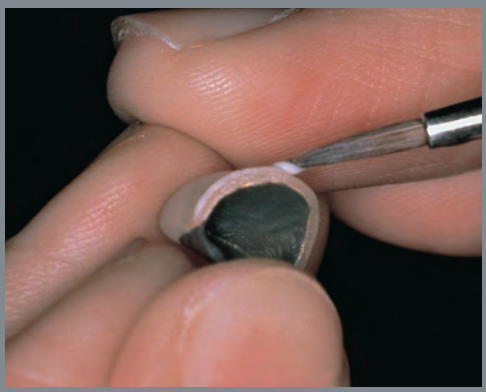

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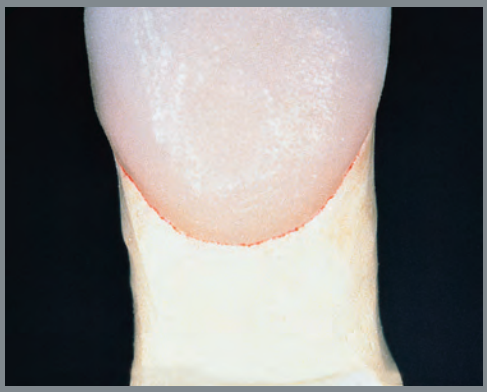

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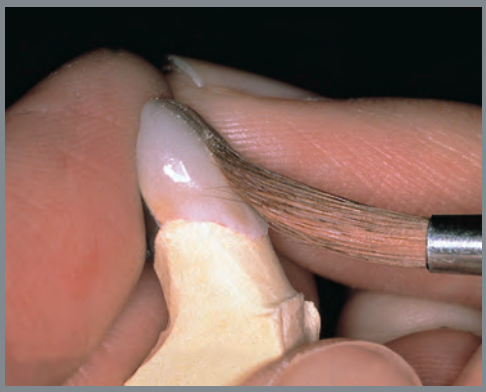

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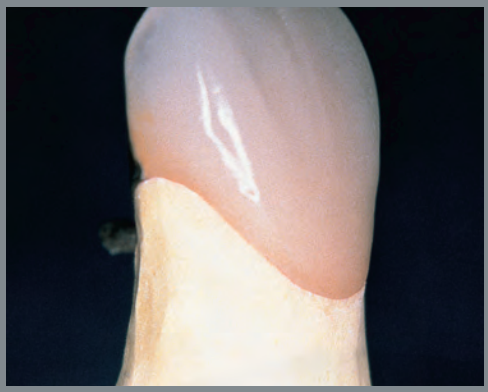

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Firing Schedule for VINTAGE Hako Porcelain System

	Pre-heating (°C)	Drying (min) →	Vacuum	Incr. temperature (°C/min) ↗	Vacuum final temperature	Final temperature	Holding time (min) →
Firing of powder opaque I	650	3	full	60	950	950	1
Firing of powder opaque II	650	3	full	60	940	940	1
Firing of paste opaque I	450	6	full	60	950	950	1
Firing of paste opaque II	450	6	full	60	940	940	1
Firing Margin I	650	5	full	60	940	940	0
Firing Margin II	650	5	full	60	930	935	0
Firing of body, opaque dentin, incisal and translucent, effect 1. firing	650	5	full	60	910	910	0
Firing of body, opaque dentin, incisal and translucent, effect 2. firing	650	5	full	60	905	905	0
Self-glazing	650	3-5	0	60	0	900	0,5
Firing of correction (Add-On Porcelain)	650	3-5	full	60	870	870	0
CPM/CPM fine	650	5-7	0	60	0	870	0,5

The above-mentioned is to be understood as a recommended guideline.

VINTAGE Halo

Instructions for Use

MARGIN PORCELAIN

SHOFU®

VINTAGE Halo

VINTAGE HALO Margin Porcelain

The VINTAGE HALO Margin Porcelain Set is an optional extra for the VINTAGE HALO porcelain assortment, used to create perfect aesthetics in the cervical area of metal ceramic restorations.

Even shoulder preparations level with the gingival margin, and with conventionally designed frameworks, often suffer from dark crown margins due to the shadow caused by the metal.
Even if the metal framework is only reduced slightly, VINTAGE HALO Margin Porcelains transmit the light deep into the tooth to reproduce these zones naturally, easily and quickly.

A shade guide simplifies selection of the desired shade of Margin Porcelain, which is available in all 19 VINTAGE HALO shades based on the VITA* Classic shade guide.
The special separating agent enables the porcelain margins to be released from the die easily after building up.

As VINTAGE HALO Margin Porcelains only undergo minimal shrinkage, are dimensionally stable and produce high strength margins, they result in restorations with a high precision of fit and which can be adjusted with two add-on porcelains, even after completion.

* „VITA“ is the registered trademark of VITA-Zahnfabrik.

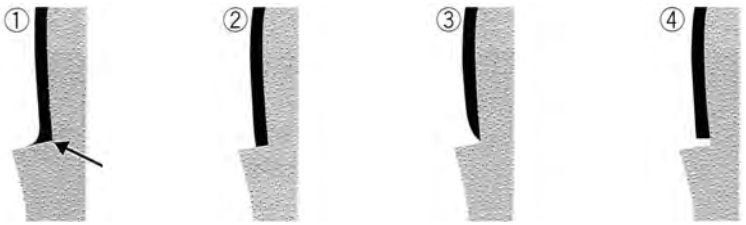
Application

Preparing the tooth

If an all-porcelain shoulder is required, a 95°-110° shoulder must be prepared which creates adequate space for 0,5-0,7 mm of porcelain.

Metal framework

Crown and bridge frameworks must never exhibit sharp line angles or undercuts. The metal coping should extend down to the shoulder. The recommended thickness for precious bonding alloys is approximately 0.3 mm, and 0.2 mm for non-precious alloys. To ensure that the porcelain shoulder exhibits adequate strength, the margin of the coping must never taper. **Refer to diagrams 1-4.**



Correct Correct Incorrect Incorrect

Trimming the surface of the metal framework

Before firing the porcelain onto the framework, ensure that it is free of blowholes and porosities and that its entire surface has been trimmed to ensure that it is absolutely clean. Once the surface has been trimmed with cross-cut tungsten carbide cutters, run over it with ceramic-bonded stones such as SHOFU Labo-Stones which are coded white, pink or coral depending on the type of alloy. Then steam clean the framework and sandblast/oxidize it according to the alloy manufacturer's instructions. Once the oxidation firing has been completed, it is usually sufficient to sandblast the surface once with aluminium oxide to ensure that it bonds properly to the porcelain.

Paste opaquer / Powder opaquer

The opaquer must be applied as described in the VINTAGE HALO instructions for paste or powder opaquer.

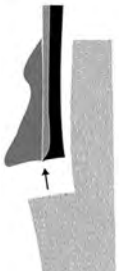
Separating agent

The VINTAGE HALO Margin Porcelain Set contains a special separating agent which simplifies releasing the crown from the die. Before building up the margin porcelain, brush 2-3 coats of separating agent onto the margin region of the die and allow 30-60 seconds for it to dry in air. The volatile constituents of the separating agent evaporate quickly to leave a protective coating on the surface. Close the bottle immediately after use. The separating agent should be reapplied after every firing and before applying Margin porcelain.

Applying the first layer of Margin porcelain

Mix the desired Margin porcelain with distilled water until the consistency is creamy. Once the opaquer firing has been completed, release the coping from the die and apply Margin porcelain to the cervical region **(Figure 1).** Vibrate the die gently (preferably with a Ceramosonic Condenser) and soak up the liquid to condense the porcelain. Replace the crown on the die exactly **(Figure 2).**

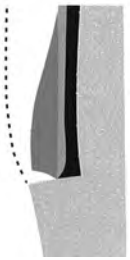
Then use an instrument to adapt the moist porcelain to the outermost edge of the shoulder **(Figure 3).**



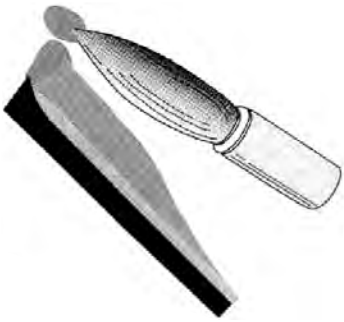
Check that the coping can be released from the die.

Replace the coping **(Figure 4),** smooth the surface with a dry brush **(Figure 5)** and remove the excess porcelain **(Figure 6).** Release the coping carefully and check that there are no porcelain particles inside it. Fire the porcelain as described in the firing chart.

Building up the second layer of Margin porcelain

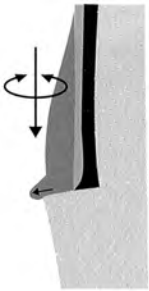


A second firing is usually required to compensate for firing shrinkage **(Figure 7).**



After ensuring that the coping fits the die precisely, raise the coping and apply separating agent to the die. Apply a small amount of porcelain to the margin of the coping **(Figure 8).**

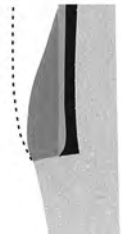
To simplify applying the porcelain, dilute the CPM Liquid supplied in the set with an equal amount of distilled water and mix the Margin porcelain until the consistency is creamy.



After condensing the porcelain and absorbing the excess liquid, replace the coping on the die by rotating it gently **(Figure 9).**

The coping should be released again to add the missing porcelain **(Figure 10).**

Replace the coping on the die to smooth the surface and remove the excess porcelain **(Figure 11).** Release the coping again to fire the porcelain and check that there is no porcelain inside the coping **(Figure 12).**



As VINTAGE HALO Margin porcelains only exhibit minimal shrinkage, a very high precision of fit can usually be achieved with the second firing **(Figure 13).**

Building up the crown

The crown should be built up with VINTAGE HALO Opaque-Dentine, Body, Incisal and Opal-Incisal porcelains as well as, if necessary, shade modifiers as described in the VINTAGE HALO instructions. To ensure that the shade of the restoration matches that of the residual dentition perfectly, it is advisable to apply a layer of Opaque-Dentine over the VINTAGE HALO Margin porcelains and taper it toward the centre of the crown.

As the Margin porcelains remain stable after several firings, they still fit precisely after the dentine has been fired **(Figure 14).**

Trimming, prepolishing and glaze firing

The restoration should be trimmed with Dura-White stones, Dura-Green stones or finishing diamonds. Soft-Cut PA and PB porcelain polishers are excellent for prepolishing. Please note that the porcelain shoulder must be adjusted/prepolished carefully with Soft-Cut polishers **(Figure 15).** The glaze firing should then be carried out as described in the VINTAGE HALO instructions.

Adjusting the shoulder with CPM / CPM fine

Should the porcelain shoulder require further adjustments after the glaze firing, use the CPM or CPM fine (special shoulder add-on porcelains) contained in the set. They should be mixed with CPM Liquid. Use CPM porcelain for minor adjustments and CPM fine porcelain for minute adjustments after the glaze firing. Prior to applying CPM or CPM fine porcelains, apply a further coat of separating agent to the shoulder region of the die. Apply a small amount of CPM or CPM fine porcelain to the outermost margin of the porcelain shoulder **(Figure 16)** and condense it gently. Replace the crown on the die gently and use a dry brush to remove the excess material **(Figure 17).** Once the CPM or CPM fine porcelain has been fired, polish it carefully with Soft-Cut or Ceramisté polishers. **(Figure 18)** shows a precisely fitting, very aesthetic restoration.

Shade determination chart

Shade		A1	A2	A3	A3.5	A4	root A
Opaquer		A1O	A2O	A3O	A3.5O	A4O	root AO
Margin		A1M	A2M	A3M	A3.5M	A4M	root AM
Opaque-Dentine		OD-A1	OD-A2	OD-A3	OD-A3.5	OD-A4	OD-root A
Body		A1B	A2B	A3B	A3.5B	A4B	root AB
Opal Incisal or Standard Incisal	57	❍					
	58	■	❍ ■				
	59			❍ ■	❍ ■		
	60					❍ ■	❍ ■
Translucent	T	■	■	■	■	■	■

❍ Opal Incisal

■ Standard Incisal

B1	B2	B3	B4	root B
B1O	B2O	B3O	B4O	root BO
B1M	B2M	B3M	B4M	root BM
OD-B1	OD-B2	OD-B3	OD-B4	OD-root B
B1B	B2B	B3B	B4B	root BB
❍				
	❍ ■			
		❍ ■		
			❍ ■	❍ ■
■	■	■	■	■

C1	C2	C3	C4	root C	D2	D3	D4
C1O	C2O	C3O	C4O	root CO	D2O	D3O	D4O
C1M	C2M	C3M	C4M	root CM	D2M	D3M	D4M
OD-C1	OD-C2	OD-C3	OD-C4	OD-root C	OD-D2	OD-D3	OD-D4
C1B	C2B	C3B	C4B	root CB	D2B	D3B	D4B
❍ ■	❍ ■				❍		
		❍ ■			■	❍	❍ ■
			❍ ■	❍ ■		■	
■	■	■	■	■	■	■	■

Firing Schedule for VINTAGE Halo Porcelain-System

	Pre-heating (°C)	Drying (min) →	Vacuum	Incr. temperature (°C/min) ↗	Vacuum final temperature (°C)	Final temperature (°C)	Holding time (min) →
Firing of Powder Opaque I	650	3	full	60	950	950	1
Firing of Powder Opaque II	650	3	full	60	940	940	1
Firing of Paste Opaque I	450	6	full	60	950	950	1
Firing of Paste Opaque II	450	6	full	60	940	940	1
Firing Margin I	650	5	full	60	940	940	0
Firing Margin II	650	5	full	60	930	935	0
Firing of Body, Opaque Dentin, Incisal and Translucent, Effect 1. firing	650	5	full	60	910	910	0
Firing of Body, Opaque Dentin, Incisal and Translucent, Effect 2. firing	650	5	full	60	905	905	0
Self-glazing	650	3-5	0	60	0	900	0,5
Firing of correction (Add-On Porcelain)	650	3-5	full	60	870	870	0
CPM/CPM fine	650	5-7	0	60	0	870	0,5

The above-mentioned is to be understood as a recommended guideline.

Technical Data

VINTAGE HALO porcelain has been tested in accordance with EN/ISO 9693 and fulfills the requirements of the standard.

Coefficient of thermal expansion (CTE 25°-500 ° C):
OPAQUE
2. firing 13.0 x 10^{-6} K^{-1}
4. firing 13.1 x 10^{-6} K^{-1}
MARGIN, OPAQUE-DENTINE, BODY, INCISAL, OPAL INCISAL, TRANSLUCENT, EFFECT, MODIFIER
2. firing 12.6 x 10^{-6} K^{-1}
4. firing 12.8 x 10^{-6} K^{-1}

Glass Transition Temperature (°C):
PASTE- OPAQUE, 590 °C
POWDER-OPAQUE, MARGIN, OPAQUE-DENTINE, BODY, OPAL-INCISAL, TRANSLUCENT, EFFECT, MODIFIER 580 °C.

Alloys:
VINTAGE HALO porcelain can be used in conjunction with alloys which have a CTE (25° - 500°C) of 13.4 - 14.5 x 10^{-6} K^{-1}. By incorporating a special firing procedure after attaining the final temperature, the CTE of the porcelain can be adjusted to an alloy. This is achieved by extending the cooling time and adding a holding time of 10 minutes of 830° C without vacuum. Therefore alloys can also be used with CTE (25°-500°C) of 13,4- 14.7 x 10^{-6} K^{-1}.

Au-Pt alloys	Pd alloys	Np alloys
Herador H (Heraeus)	Duopal 6 (Wieland)	Uni Metall II (Shofu)
CTE (25° - 500°C)	CTE (25° - 500°C)	CTE (25° - 500°C)
13.9 x 10^{-6} K^{-1}	14.1 x 10^{-6} K^{-1}	14.0 x 10^{-6} K^{-1}
Normal cooling	Normal cooling	Normal cooling

Storage:
Protect the porcelain from humidity.

System:
This instruction is valid for the following components of the VINTAGE HALO MARGIN system:
VINTAGE HALO MARGIN PORCELAIN SET
19 powders Margin Porcelain: A1M, A2M, A3M, A3,5M, A4M, root AM, B1M, B2M, B3M, B4M, root BM, C1M, C2M, C3M, C4M, root CM, D2M, D3M, D4M.
2 correction powders: CPM and CPM fine
Isolation liquid, Correction liquid (CPM liquid), 1 Colour Indicator No. 7

Package:
Margin powders 5g, Isolation liquid 10 ml, Correction liquid 3 ml

Please note

1. While trimming and polishing restorations, use a dust extractor or wear a face mask to prevent inhalation of the dust.
2. It is advisable to wear safety glasses while trimming and polishing the restoration.
3. This product should be used for the recommended indication only.

Recommended indication

Metal-ceramic shoulder porcelain

CE 0120

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