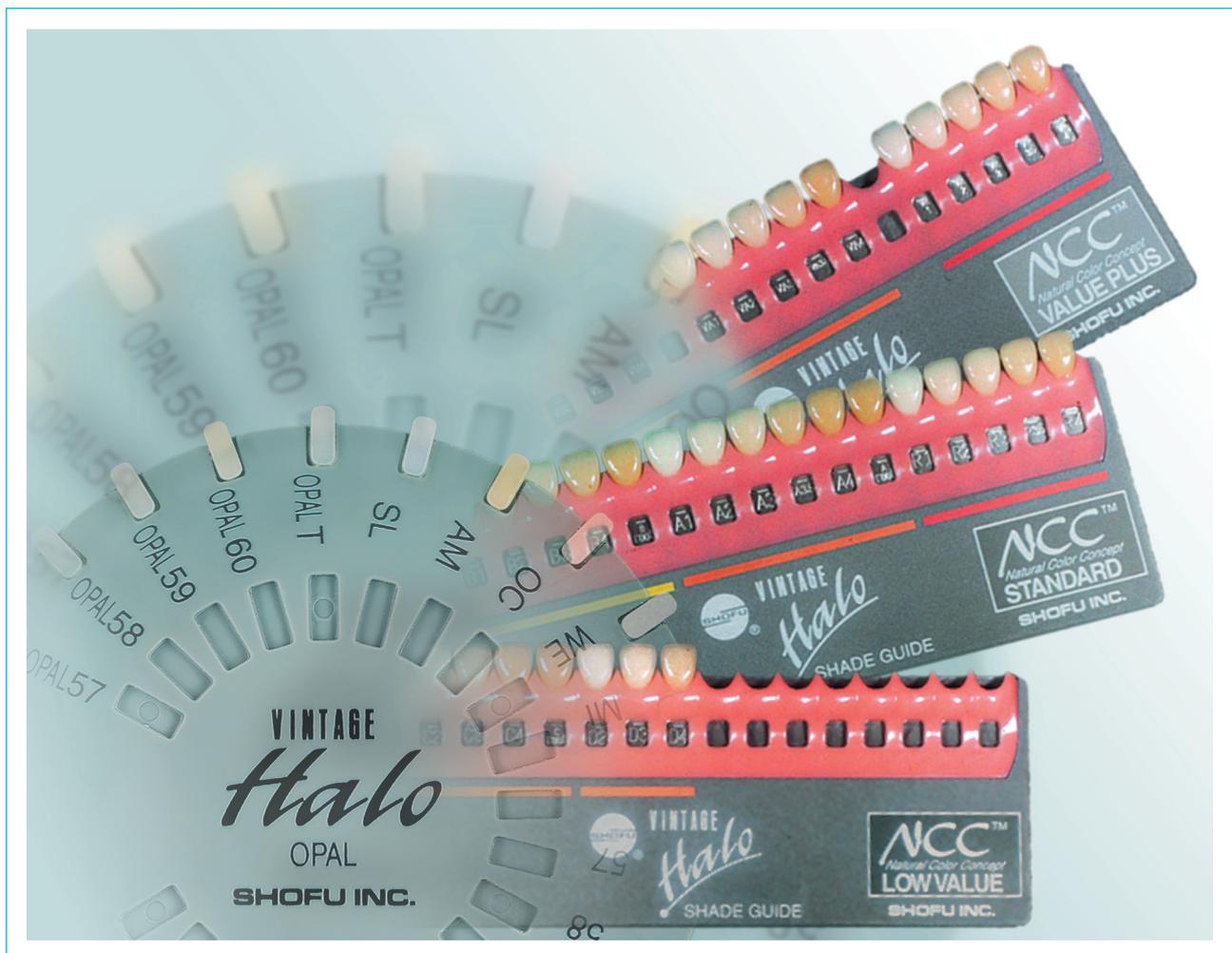


VINTAGE  
*Halo*

# THE INNOVATIVE PORCELAIN CONCEPT



Result of many years research · Innovative  
looking fluorescence and opalescence ·  
Excellent compatibility · Superb bioco



We are committed to keep high quality standards and to do everything necessary to meet this goal within the company.

At the same time, our company's philosophy is:

**"Research is our best Product".**

Our company's slogan:

**"SHOFU Quality with every turn!"**

means permanent conformity and improvement of our customer related activities.

Wolfgang van Hall  
Managing Director

ative manufacturing technology · Natural-  
Extraordinary modelling characteristics ·  
mpatibility · Individual color indicators

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# INNOVATIVE SOLUTIONS FOR NATURAL AESTHETICS

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## HALO

*"White or colored atmospheric light phenomenon caused by refraction, diffraction and reflection of sunlight or moonlight on fine crystals of ice in the atmosphere!"*

(Quote from an astronomy dictionary)

Natural teeth often have a pale or orange-colored border in the incisal region due to the scattering and reflection of light.

The VINTAGE HALO porcelain system successfully achieves this natural-looking transmission of light. With just a base build-up of Opaque Dentin, dentine and the opalescent incisal powders, natural-looking restorations are achieved without having to resort to special effect powders.

Comprehensive research with a computerised colorimeter and studies on several thousands of teeth by the world-renowned ceramist Makoto Yamamoto form the basis of this range of porcelains.

Of course, only the best material and innovative production technology meet these high quality requirements.

### The VINTAGE HALO porcelain system also provides further advantages:

- Natural-looking opalescence and fluorescence even after several firings
- Accurate reproduction of the VINTAGE HALO shade tabs
- NCC® color system extended to 38 shades for patient-oriented shade selection
- Excellent compatibility with virtually all modern firing alloys with CTE values of  $13.4-14.5 \times 10^{-6}K^{-1}$
- High build-up stability
- Low firing shrinkage
- Consistent quality of all batches by constant quality control



*Makoto Yamamoto*

# THE BASIS OF AN ESTABLISHED PORCELAIN CONCEPT



The comprehensive Base Set forms the basis of the VINTAGE HALO porcelain range and – with its logically coordinated individual porcelains – allows true to nature reproduction of the VINTAGE HALO Shade Guide shades.

In addition to Opaque-Dentine, dentine and the standard incisal powders, this range includes incisal and translucent porcelains which are already opalescent, as well as correction powders (ADD-ON) with a lower firing temperature.

To start using the VINTAGE HALO technique, only an Opaque Set, which contains paste or powder opaque is required in addition to the Base Set.

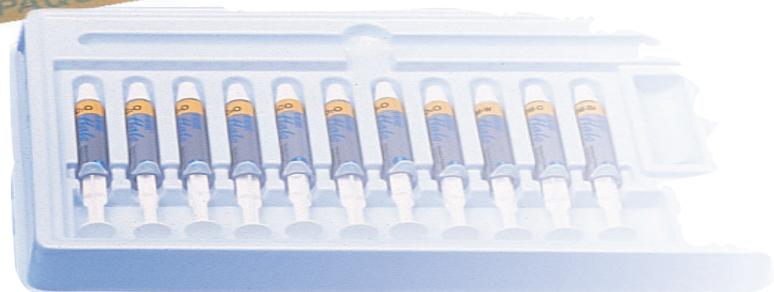
There are no limits to what can be achieved with the VINTAGE HALO porcelain range, since supplementary components such as, Effect, Opal, Margin, Red Shift or Value Plus compositions are available as sets.

This concept is therefore a modular "construction kit" system, which fulfills both economic and individual aesthetic requirements in all respects.



Using the opalescent incisal powders allows a logical layering technique with dentine and enamel porcelain to give the appearance of a natural tooth.

# INTRINSICALLY FAST AND RELIABLE



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In addition to conventional powder opaques, ready-to-use paste opaques are available. These materials are not only used to cover the metal framework but also form the fundamental basis of the logically constructed shade system for true to nature reproduction of porcelain work.

VINTAGE HALO Paste Opaque combines a specifically matched particle size distribution with an ideal viscosity. This allows a uniform covering with an extremely thin layer. There is also the possibility of adjustment to the consistency of the pastes by adding a small amount Paste Opaque Modelling Liquid if required.

Since the opaque layer is extremely important for further shading, various modifiers are available in the Paste Opaque Set in addition to the standard shades.

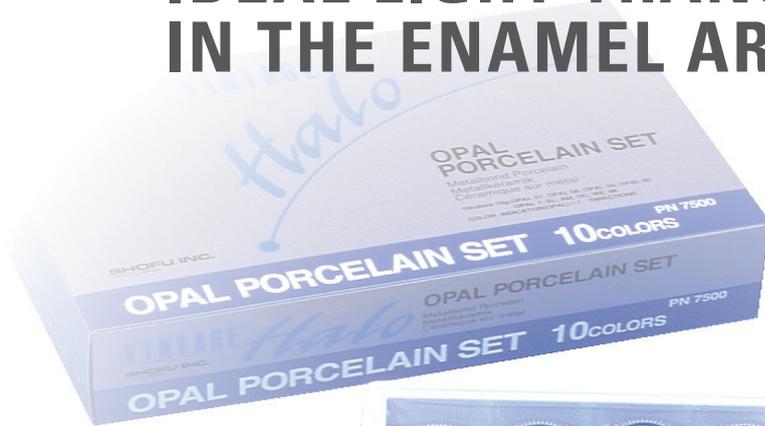
The more refined particle distribution of the VINTAGE HALO Opaque powders, in combination with the Opaque Liquid and the Opaque Liquid-L (long-term), ensures that the VINTAGE HALO Powder Opaque has paste-like properties for application.

When mixed with these liquids, VINTAGE HALO Powder Opaque is impressive by its easy application properties, long working time, low shrinkage and outstanding adhesion to virtually all modern porcelain alloys.



Mixed with Opaque Liquid-L, VINTAGE HALO Powder Opaques feature a long working time and low shrinkage.

# IDEAL LIGHT TRANSMISSION IN THE ENAMEL AREA

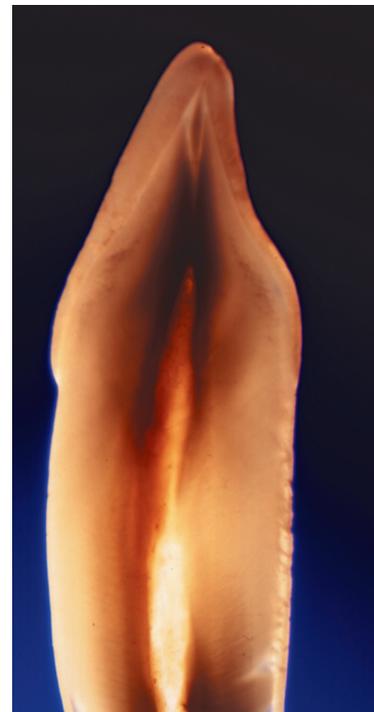


Under different light conditions, natural teeth develop a unique interplay of shades from bluish-translucent to diffuse reddish-orange. The cause of this phenomenon lies in the scattering of light due to the particle size of the enamel prisms.

VINTAGE HALO Opal porcelain is so similar to enamel in structure and particle size distribution that it reproduces these light effects without the addition of intense shades.

To imitate the regions of enamel as ideally and patient-oriented as possible, the accessory components of the OPAL Set are available in addition to the Opal Powders of the VINTAGE HALO Base Set. Whether slightly translucent zones with a particular depth effect, amber-colored incisal regions or milky-cloudy occlusal shapes, all aesthetic requirements and individual characteristics can be achieved with these porcelains.

A shade indicator from original porcelain powders facilitates direct choice of the required opal shades and provides the opportunity to check after the porcelain restoration has been produced.



The prism structure of natural teeth causes a color-play of light-waves from bluish-translucent to amber-orange.

# EASY INDIVIDUAL EFFECTS



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Many years of practical experience and the results of computer-aided shade analysis formed the basis of the development of the VINTAGE HALO effect shades. Enabling us to imitate nature to the optimum and as effectively as possible.

In addition to the basic shades for mixing in Opaque Dentine and dentine powders, this range contains special mamelon porcelains and various translucent porcelains for controlling the diffuse scattering of light in the incisal area.

The effect powders are very simple to use. They are mixed in as required to characterize and individualize, or used without mixing to emphasize intense effects.

Since the foundation for the harmonious appearance of the restoration is already laid when the first layer of

opaque is applied, Opaque Modifiers are available separately in addition to the effect shades in this set.

The Color Indicator contains shade samples of the Opaque Modifiers to provide the dentist and dental technician with the possibility of determining all the individual colors when choosing the shade.

The VINTAGE HALO Effect Color Set leaves space for the addition of Opaque Modifiers, if required, thereby giving the opportunity to customize the box.



Whether in the cervical, dentine or enamel region, natural-looking, individual characteristics are created quickly and easily with the VINTAGE HALO effect shades.

# ACCURATELY MATCHING AESTHETIC CROWN EDGES



The contour and shape of the cervical area has a decisive influence on the natural appearance of porcelain fused to metal restoration.

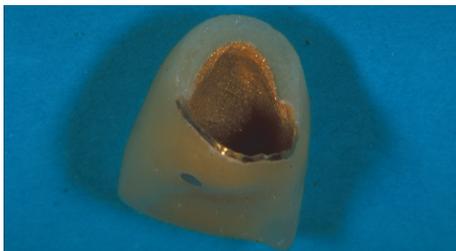
With systematic preparation at the gingival margins in particular, conventional shaping of the framework often gives rise to a visible dark edge on the crown because of the shadow effect of the metal.

Accurately matching aesthetic crown edges can be achieved without problems using the VINTAGE HALO Margin Porcelain.

This allows transmission of light deep inside the tooth even if the metal framework is only slightly reduced.

#### Other advantages:

- Low firing shrinkage
- Excellent stability of the shape and edges
- Precise matching
- High compressive strength
- Possibility of correction after production using Correction Powder and Liquid



The porcelain edges of the crown are particularly impressive in their excellent match and "sharp edges" when viewed close up.



The ideal transmission of light gives a vital and natural look to the porcelain particularly in the case of a slightly reduced metal framework.

Crown 12 has been made by MDT Michael Kramprich, Düsseldorf.

# THE RED-SHADE VARIANTS OF A PROVEN SHADE CONCEPT



The various hues and brightnesses of shades cannot be determined using conventional shade guides, because with 16 or 20 shade variants these can cover only a limited spectrum of shades.

This specifically applies to the widespread A shade group, which, in many instances, does not offer the dentist and dental technician sufficiently red-shaded hues.

SHOFU has therefore expanded the conventional shade guide and has developed the corresponding porcelains as an addition.

## The VINTAGE HALO Red Shift shades

Corresponding to the shades of the A shade group A1–A4, the reddish Red Shift shades are called R1–R4.

Choosing the Red Shift shade is very simple and is done conventionally using the VINTAGE HALO Red Shift Shade Guide, which is available separately as a supplement to the VINTAGE HALO Basic Shade Guide.

Even hues with an increased brightness in the reddish-shade region can be determined and reproduced reliably and without problems in this way.

The Red Shift Set contains all the necessary Powder Opaques and dentines for use according to the basic build-up system.

In addition to powder opaques, ready-to-use paste opaques are available.



Direct comparison clearly shows: when compared to the left crown in shade A3 under the same intensity, the right-hand restoration in shade R3 shows a slight "shift" towards red.

# BRIGHTNESS HANDLED



Although the basic shade usually matches, the brightness of natural teeth often deviates significantly from the shade tabs of conventional shade guides.

Attempts to compensate for these differences by mixing in other dentine or enamel shades often fail, because the color changes in addition to the value.

The VINTAGE HALO Value Plus Set therefore contains dentine powders, which give an increased brightness compared to the standard powders of the A and B shade groups. The Value Plus dentines of the A group A1–A4 are correspondingly called VA1–VA4 and the porcelains of the B group are called VB1–VB4.

As with the Red Shift porcelains, the shade is chosen conventionally using the VINTAGE HALO Value Plus Shade Guide, which is also available as a supplement to the VINTAGE HALO Basic Shade Guide.

Value Plus is mixed ready to use and is simply substituted for the standard dentines.

This set also contains various modifiers for individual matching using the shade of the opaques and dentine powders, rounding off the variety of possible indications of the system.



With VINTAGE HALO Value Plus, the brightness of the porcelain can be controlled in accordance to its natural counterpart.



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