VINTAGE Halo

Instructions for Use

EFFECT COLORS
Individual Colour Effects

The appearance of natural teeth is often determined by modifications of shade, colour characterisation or areas of translucency. The VINTAGE HALO EFFECT COLOUR SET has been developed after many years of experience and continuous colour analysis by computer enabling the ceramist to reproduce exactly a natural shade within a restoration. A further benefit of the colour analysis of natural teeth, is that besides being able to offer more life-like basic shades, an assortment of colour modifiers and effects have been developed, including mamelon and translucent effects. These effects allow the technician to reproduce subtle nuances of colour and shade. The VINTAGE HALO COLOUR SET also contains a colour indicator, used to determine the individual aesthetics required for each patient.
HALO Effect Colours are simple and easy to use to characterise or individualise the VINTAGE HALO system. The Effect Colours can be used either by mixing with the opaque, body or enamel powders, or unmixed to create a stronger colour depending on the effect required.

The Effect Colours are divided into Opaque modifiers (OM-powders), body, incisal and translucent modifiers, therefore the firing schedule is based on these components. The following overview explains of the Colour Effects and some of the modifications that are possible.

**The Opaque Modifier (OM-powders)**
When applying the first opaque layer, the colour of the whole crown is influenced. Whether a nuance of colour is required in the cervical or incisal area, the Opaque Modifiers are excellent in achieving the best possible adaption to the natural dentition.

**Note:** OM-powders are only recommended for the colour adaption of the powder opaque. The Paste Effect Colours for Paste Opaque are available separately.

**OM-G (OM-Grey)**
Grey Effect Colour is used to individualise incisal and inter-dental areas and is especially useful in creating an illusion of depth within a minimum space.

**OM-P (OM-Pink)**
Pink Effect Colour is excellent for giving the opaque a "warmer" appearance, and can be used to modify the opaque when the colour of the conventional shade guide appears too cold. If a more reddish colour is required as with the Red-Shift Opaque-powders it is possible, to create more intensive colour by adding of OM-P.

**OM-O (OM-Orange)**
In cervical, occlusal or palatinal areas it is often necessary to enhance the colour of the opaque, because of the limited space available it may be difficult to use both, body and opacious-dentine. By adding OM-O in these areas, the desired shade can be easily achieved.

**OM-Br (OM-Brown)**
This intense brown effect supports the basic opaque colour to reproduce the striking tooth colours of elderly patients. OM-Br is used in a similar manner to OM-O and is used to characterise the cervical or palatinal areas. In most cases the addition of a small amount (2%- 5%) is sufficient to give the desired result.
**OM-Y (OM-Yellow)**

OM-Y can be used to characterise the opaque in the same way as OM-O or OM-Br. Alternatively OM-Y can be used as the wash opaque firing. Reduced or non precious alloys exhibit a very dominant opaque layer which gives a greyish appearance even after applying two coats of opaque. This greyish appearance can be reduced if OM-Y is used for the wash-firing. The intense yellow colour of this layer gives the restoration a "warmer" appearance. If a more yellowish colour is required as with the Opaque powders of the B-shade range it is possible to create a more intensive effect by adding of OM-Y.

**OM-W (OM-White)**

Natural teeth often do not match the shadeguide and are a mixture of colours in particular younger teeth exhibit very light colours. OM-W makes it possible to brighten the opaque or prepare a strongly demineralised area.

**OM-S (OM-Sand)**

OM-S can be used to reproduce greyish areas and reduce intense reflection of the opaque. By adding OM-S to the opaque, reflection is reduced and an illusion of depth is achieved, especially in the incisal and interproximal areas OM-S is far less intense in appearance than OM-G.

**The Body Modifiers**

The VINTAGE HALO system offers various colours to characterise the body porcelain to achieve the desired aesthetic result.

**W (White)**

Young teeth often exhibit light or demineralised areas. W can be added to body or Incisal powder to adjust the colour and is used to create more whitish subgingival areas of demineralisation or at the cusp tips of molars. This effect can be more intensive than with Opal Milky.

**O (Orange)**

For secondary dentine or occlusal characterisation the effect O can be used to adjust the colour to give an aged appearance exhibited in older teeth. Mix 5% - 10% of O with body or opaque dentine and apply onto the body porcelain or directly onto the fired opaque.

**Br (Brown)**

Br is a very intense colour which appears more intensive than O and should be used to intensely age the colour of the restoration. If the opaque has not been modified earlier, it is possible to modify the body and/or the opaque dentine with Br, so that even in thin sections an intense brown colour can be reproduced. It is only usually necessary to add small amount (2% - 5%) to achieve the desired result.
RED- D (Red-Dark)
The colours RED-Dark and RED-Light have a special position within the effect colours. RED-Dark is mixed with body to achieve a dark-reddish modification. This colour appears gingiva-like and additionally serves for the creation of interdental papillas or parts of pontics of porcelain veneered bridgeworks.

Note: The firing temperatures of RED-Dark and RED-Light are same as the firing temperatures of VINTAGE HALO body.

RED-L (Red-Light)
With RED-Light it is possible to adjust both body and opaque dentine to achieve a light reddish colour. This may be necessary when using the gingiva-coloured GUMY to select the shade, as the GUMY influences the colour of the shade guide. The optimum colour match to the adjacent teeth is achieved by adding between 10 - 40 % RED-Light to the opaque-dentine, and between 10 - 20 % to the body.

MP (Mamelon Pink), MY (Mamelon Yellow)
The finger-like mamelon structures of younger teeth often appear more intensive and brighter than the basic body colour. This colour can have either a pink or yellow hue depending on the individual nuances. MP and MY are two mamelon colours which can be used either by mixing with the body colour or pure. Adding approximately 20% mamelon powder to the body porcelain will increase the colour intensity. When MP or MY are used pure, mix a wash with distilled water and apply thinly to the prepared Mamelon cut-back.

The Translucent / Incisal Modifiers
As an additional choice to the Opal Incisal and Effect Colours available in the Opal Full Set, YT (Yellow Translucent), BT (Blue Translucent) and BG (Blue Glass) have been developed. These translucent powders increase the yellowish or bluish colour in the incisal area. Translucent / Incisal powders can be mixed or used pure with any of the Incisal and Opal Incisal powders to increase translucency.

YT (Yellow Translucent)
YT is used to create yellowish translucent areas and is particulary useful when used with Opal Amber to reproduce abraded enamel areas. Used pure YT can be applied with BT and BG between the mamelons to create areas of differing light transmission. This effect can be intensified by applying a layer of Opal incisal over the translucent layer. YT can be applied over the layer to increase the depth of yellow colour of the finished restoration.
BT (Blue Translucent)
The mamelon areas of younger teeth exhibit areas of intense blue translucency. BT reproduces these areas naturally without any greyish effects being exhibited. Opal Superlucent and BT can be used together in the incisal area to increase the Halo effect and interproximally to draw colour from the adjacent teeth.

BG (Blue Glass)
The Effect Colour BG is far more bluish transparent than BT. BG is used in a similar way to BT, but the effects are far more intense. BG is especially useful in the control of the bluish transparency of opalescent enamel powders.
<table>
<thead>
<tr>
<th></th>
<th>Pre-heating (°C)</th>
<th>Drying (min)</th>
<th>Vacuum Incr. temperature (°C/min)</th>
<th>Vacuum final temperature (°C)</th>
<th>Final temperature (°C)</th>
<th>Holding time (min)</th>
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<tbody>
<tr>
<td>Firing of Powder Opaque I</td>
<td>650</td>
<td>3</td>
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<tr>
<td>Firing of Powder Opaque II</td>
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<td>Firing of Paste Opaque II</td>
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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):
PASTE-OPAQUE, POWDER-OPAQUE
2. firing 14.0 x 10^{-6}
4. firing 14.1 x 10^{-6}
OPAQUE-DENTINE, BODY, INCISAL, OPAL INCISAL, TRANSLUCENT, EFFECT, MODIFIER, ADD-ON
2. firing 12.6 x 10^{-6}
4. firing 12.8 x 10^{-6}

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

Alloys:
VINTAGE HALO porcelain can be used in conjunction with alloys which have a CTE (25° - 500°C) of 13.5 - 14.4 x 10^{-6} x k. The CTE of the porcelain can be adjusted by extending the cooling time. Therefore alloys can also be used with CTE (25°-500°C) of 13.4 -14.7 x 10^{-6} x k.

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<th>Alloys</th>
<th>CTE (25° - 500°C)</th>
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Storage:
Protect the porcelain from humidity.
Store paste porcelain at room temperature (15° - 25°C).

These instructions are valid for the following components of the VINTAGE HALO PORCELAIN System:

VINTAGE HALO Effect Colour Set (15g)
3 powders Translucent / Incisal modifier, 7 powders body modifier,
1 Colour - Indicator No. 6
VINTAGE HALO Effect powders (15g / 50g)
7 VINTAGE HALO Opaque modifier (15g / 50g)

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