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Technique for Raised Enamel Process (Bohemian Style)

Firing Temperature 480 - 580°C

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General Information

The traditional technique of processing raised enamel in the so called Bohemian or Murano decoration technique, which requires a high skill of manual craftsmanship and artistic experience together with neat and precise working.

The first of the numerous operation steps is to clean the surface of the glass by applying and firing a cleaning mass, in order to achieve a perfect brilliant burn-out of the PM application during the second operation step. This first step is not always needed.

Over the fired PM subsequently put a matt covering, which will produce a silky matt

surface on the PM. Thus silky matt and lustrous PM patches evoke attractive contrasts.

As next step you may apply relief ornaments on the fired matt covering.

As the last enamel colour the raised enamel is applied in layers one on top of the other and modelled into blooms or leaves, which then can still be shaded with colours of the "Meissen Palette".

After these steps of decorating the object will be fired.

In the last operation run the relief ornament will be gilded with gold and fired again.



Steps of Processing

- 1.) Make a paste of the cleaning mass 0001/3 with distilled water and apply it with a broad brush.
- 2.) After slight drying the object has to be fired at about 430 ° C (not below 400 ° C and not above 480 ° C).
- 3.) The cooled down mass has to be rinsed with water.

(Steps 1 – 3 are not always required)

Please Note:

The informations in this leaflets are based on our current knowledge and experience. This description does not release the users from examinations and tests of their own because of uncountable possible influences, when using and applying the products in connection with every other material being involved in the production. It can not be deduced a legally obliged assurance for specific characteristics or for the aptitude of a definite usage purpose. The receiver of our products has to observe by his own responsibility probable protecting rights as well as existing laws, rules and regulations.

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- 4.) Paint bright gold on the surface with for example Bright gold GLV 7500-10% and burn it at about 520 560° C
- 5.) Cover the gold with matt flux, for instance with gold cover F 9117 or a mixture of Relief 60 and Flux FL 83 and fire again at 520 560°C.

 The Gold cover will form a semi-matt appearance.
- 6.) Paint the relief ornaments on the matt flux, for example with the gold underlay F 84/A Relief-Gelb.
- 7.) Apply the High enamel, for example F 9038/3
- 7.1.) Put a thin film of High enamel on the basis of the desired decoration.
- 7.2.) Drying process
- 7.3.) Set drop-shaped High enamel on the dry coat ground and eventually repeat the process for 2 to 3 times, to let the drops remain standing as a relief. Then brush-model embossed leaves of the applied material (Five applied points form for example a flower)
- 8.) Shade the petals with colours of the "Meissen palette".
- 9.) Fire the Relief and the raised enamel at about 520 560°C° C.
- 10.) Gild the Relief ornaments with bright gold
- 11.) Final firing at about 500 520°C.

The use of certain painting and auxiliary devices depends on the experiences of the designer.

In each case you have to adjust the firing temperature, object temperature and firing cycle to the items to be decorated and to the type of kiln.

In the temperature up to about 450 ° C – in which organic medias and covercoats decompose – the kiln should exhaust very effective. A fast increase of temperature, short peak time and a slow cooling down is advantageous to the glasses.





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Available Products

0001/3 Anschlagmasse (Cleaning mass)

F 9100 Goldüberzug (Gold cover)

F 9117 Goldüberzug (Gold cover)

B Mattüberzug (Matt cover)

NR. 60 Relief farblos (Relief colourless)

F 84/A Relief-Gelb (Relief yellow)

Fluss Nr. 83 Fluss Flux

Reliefs may be tinted with colours of the palette of Universal Glass colours.

F 9038 Hochemail grob (Raised enamel course)

F 9038/ 3 Hochemail mittel (Raised enamel medium)

F 9038/ 20 Hochemail fein (Raised enamel fine)

GLV 7500 10% Glanzgold hellgelb (Bright gold light yellow)

GLV 3512 10% Glanzgold Gelb (Bright gold yellow)

Forms of Delivery

Colour powder: Minimum purchase quantity per colour shade: 5 kg

Storage

Colour powder can be stored unlimited under dry condition.

The powders are a hygroscopic.

Before being processed with oily media, they should be dried at a temperature of about 120 ° C, because a content of little more than 0,1 % moistness will lead to "cheesy" pastes. In this case they can no longer be perfectly applied, because they become thick.

Please take care to disperse the colour powder with the medium homogenously.

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In mixing the powder with the medium, small colour lumps will still remain. Therefore please use a three roll mill or dissolver.

Security Advices

As ceramic colours are chemical products, for processing them you have to consider specific security advices according to the danger substance decree.

While processing it is most important to obey the hygienic precautions such as:

- Do not eat, drink or smoke while being at work.
- Do not inhalate dust.
- Keep it away from food-stuff, beverage and fodder.
- In case of contact with skin: Wash off and rinse with water and soap.
- If having inhalated: Rinse mouth with cold water.

For more information please contact us or ask for a Material Safety Data Sheet. (MSDS).