



Thinner V 171 H for precious metal pastes for direct screen printing and decals

1 General Information

V 171 H is a thinner for precious metal pastes for direct screen printing and decal production. Evaporation behaviour: Slow drying.

Heraeus precious metal pastes are typically prepared ready for use. But after a longer time of printing, with the paste distributed in the screen and exposed to evaporation, it might be necessary to add some solvent to bring the paste back to usual solvent level. With moderate addition of V 171 H one can assure that the material deposit applied on the substrate respectively the decal paper stays fairly constant.

2 Recommendations for the usage

The typical usage of V 171 H is not to thin down the precious metal paste, but to add the amount of solvent which has been evaporated during printing. An indicator that a solvent adjustment is necessary is, if the natural colour shade of the material layer printed is getting step by step darker. Then solvents have been evaporated and the material layer has got thicker.

Thickened paste should be definitely adjusted before the material is put back into the jar to get stored.

Please take care that V 171 H is getting properly mixed into the paste and homogenized. We recommend the homogenization with a three role mill.

3 Storage

Thinner V 171 H should be stored at room temperature (20°C). We recommend using the material within 12 months time.

4 Safety data information

For safety data information please check our Safety Data Sheet for V 171 H.

5 Typical defects, root causes and countermeasures

| Defect | Possible Cause | Countermeasure |
|---|---|---|
| Fired decorations show pinholes. | too much thinner might been added. | Add some more original material to reduce the concentration of solvents. We recommend up front to be very careful with thinning. The target is only to substitute evaporated solvents. One might start with the addition of about 5% thinner. |
| Material cannot be homogenized after the addition of thinner. | The material might have already been gelled, when the thinner had been added. | One should not wait too long before the correction of the solvent concentration. If the paste gets too thick, the risk is that the paste gellifies. After a gellification, the material cannot be adjusted with thinner anymore. Therefore we recommend to correct the solvent concentration of paste from the screen, before the material rest is filled back into the material container. |
| | An unsuitable thinner has been used. | We recommend for the thinning of Heraeus precious metal pastes V 171 H. |