



Aqua-Temp SIG L68742

Water-based stoving Ink for Screen Printing Applications

Area of Application

Aqua-Temp SIG is a stoving ink system for glass, ceramics, metals and other materials, which resist the stoving process.

Color Shades

Protective Lacquer Aqua-Temp SIG L68742

Color shades are in development.

Characteristics

Substrates must be clean and free of grease. Aqua-Temp SIG is based on organic binders. Therefore, the dried ink film does not resist scratching or pushing with hard, sharp-edged objects.

Final ink properties / resistances are achieved after the stoving process.

The colors of Aqua-Temp SIG do constitutionally not contain any pigments based on toxic heavy metals (DIN EN 71, part 3).

Auxiliaries

Before printing, 2 % Defoamer L54131 and 2 % Adhesion Promoter 106 must be added to the ink.

Stir in well.

This mixture has a pot life of 48 hours.

Printing

Screen fabrics of about 77 up to 150 threads/cm (195 up to 380 threads/inch) are suitable.

Aqua-Temp SIG L68742 can be processed well when the relative humidity in the production hall exceeds 50 %. Preferably it should be between 55 - 60 %. It is recommended to wet the fabric with water shortly before printing and to make sure that the screen is always flooded thickly.

Recommended ambient temperature should be between 20 – 23 °C (68 – 74 °F).

In addition, please refer to our technical leaflet ["Printing with Water-based Screen Printing Inks"](#).

Thinning

Press ready; if necessary, the ink can be thinned with up to 10 % water.

Stencil

Water resistant emulsion must be used. Good results are achieved by using Proell Diazo-UV-Polymer Emulsion Norikop 10 HQ. Sufficient drying of the emulsion is essential, residual moisture before exposure reduces print run resistance. The exposure time should be as long as possible.

Drying

Each individual ink layer must be dried at 50 °C – 80 °C (122 °F – 176 °F), if two or more layers are printed.

Final stoving of all ink layers at 180 °C (356 °F) for 30 minutes is mandatory.

The exhaust air of the stove must not be led into the working room.

Cleaning Screens and Utensils

Remove the ink as far as possible from the screen and utensils, then apply Cleaner Concentrate 6953 (diluted with water 1:1), let it react on the ink residue for some seconds, then wipe it away with water using a sponge or a soft brush.

Avoid eye and skin contact with alkaline cleaners, use personal protective equipment (e. g. gloves and glasses).

Shelf Life

Allow the ink as well as all the auxiliaries to be added to adjust to ambient temperature in the closed container before use.

The shelf life stated on the label assures the ink's quality and refers to unopened original cans stored in a dry place at temperatures between 5 °C (40 °F) and 25 °C (75 °F).

Important

Printing results, to a large extent, depend on the substrate as well as the conditions of use. We recommend checking your substrate under your printing conditions before performing any production runs. Materials that are supposed to be identical may vary from manufacturer to manufacturer and even from batch to batch.

In general please refer to our technical leaflet ["General Information on Screen Printing Inks"](#).

Disposal

Before pouring waste into the sewage, it should be pretreated according to state-of-the-art technology.

Safety precautions – General indications:

When working with chemicals, the usual safety precautions are to be observed. These are besides the rules of the Accident Prevention & Insurance Associations a good ventilation of the work place as well as good skin care and protection.

Before starting a production run, it is necessary to test samples of each newly designed part systematically with regard to the specifications for the intended use (e. g. climatic chamber, resistance, etc.).

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