SCREEN INKS



THERMOSET Glossy inks

Product description

Thermoset are one-pack and oven-curing inks, specially formulated printing aluminium materials.

They can be printed with very good results on metals, glass, ceramics and other kind of materials that can stand the high temperature in the oven.

These inks are used mainly to print plates, panels for washing machines, washing-up machines, refrigerators, television-sets, gas-stoves etc. as they fulfil the strict specifications of the most important electric household appliance producers.

Main characteristics

Thermoset inks are one-pack inks with incorporated catalyst, therefore in comparison to ordinary two-pack epoxy inks; they offer the advantage of not having a short printing life (Pot Life).

These inks overcome the following chemical adhesion and physical resistance tests:

1. Adhesion

Particular pre-treatment to improve adhesion are not necessary, only the support must be perfectly degreased and without impurities. Under these conditions the adhesion test give always very good results.

2. Shearing and creasing

These inks show a remarkable elasticity and flexibility and they can perfectly stand shearing and creasing tests (outer radius mm 2)

3. Resistance to detergents and solvents

Very good resistance also in hot conditions, to rubbing and immersion in detergents (VIM) spirit and petrol

4. Resistance to U.V. rays and heat

Good results are obtained after long exposures to u.v. rays hours (72 hours exposure, Philips lamp 400 HPR) and to heat (12 hours oven at 150°C).

5. Outdoor resistance

Long exposure to external agents tests allow the use of these inks for outdoor application.

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METHODS OF EMPLOY

Thinning

At 10% or_15% thinning is requested, depending on the screen fabric and on room conditions. Four types of thinners with a different level of evaporation are available. To clean the screen after printing it is advisable to use the Universal Wash-Solvent 251.

Curing

It is not advisable to start the curing in the oven immediately after printing. It is better to let the ink rest for 5-10 minutes to obtain a smooth coat and to allow the evaporation of a part of the solvents. Curing in air convection ovens must occur at 170°C for at least 30 minutes. Using infra-red rays ovens, time in the oven is remarkably reduced.

Overprinting of colours

When multiple colour prints have to be carried out, after the printing of every colour a partial curing at 170°C for 5 minutes is advisable.

After the printing of the last colour the full curing should be completed.

RANGE OF COLOUR AND AUXILIARY PRODUCTS

Thermoset inks are available in all standard shades of our colour chart of glossy inks.

All colours can be mixed to each other.

Transparent Thermoset 236 is employed, besides the mixing with coloured pastes, also as overprinting varnish for protecting the printing and the metallic surface.

Storage

It is advisable not to store these inks for more than 6 months as they tent to self-curing

Packaging

All colour are available in 1 and 5 Kg. Packages.

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This information is based on our direct experience but it does not answer any real guarantee.