



### **EPOCAT** **Glossy inks**

#### **Product description**

With Epocat serie two-component ink, it is possible to print on different kind of supports, both rigid and flexible. These inks turn out to be very useful both for their versatility and for their good adhesion on materials that otherwise could not be printed by screen printing. They give excellent results on metals, glass, ceramic, rigid plastics, etc.

Epocat inks are commonly used for plates and aluminium panels, as they are very resistant to binding, shearing, creasing and to chemical agents.

They give excellent results in advertising and neon signs made of rigid plastic materials (Plexiglas) and polystyrene. They are used to decorate bottles and containers i.n glass and pre-treated polythene, when a good resistance to chemical and physical agents is required. Moreover with these two-pack inks, thermosetting plastic materials, like Phenolics (Bakelite) and Ureas/melamine (Formica) can be printed.

#### **Main characteristics**

These two-component inks, very easy to print, have the following characteristics:

##### **1. Adhesion on all kind of supports**

A good standard of adhesion is achievable on all supports. On some supports adhesion is of chemical kind, on others it is only a physical adhesion.

##### **2. Chemical agents and heat resistance**

After a full curing time these inks are provided of an extraordinary resistance to most of the chemical products, like detergents, fats, oils, petrol, spirit and organic solvents. They are resistant also to acids and to alkaline solutions.

They can be also applied to those materials that undergo heat and sudden changes of temperature (for example laminates for printed circuit- boards).

##### **3. Elasticity and flexibility**

Not only can the Epocat inks be applied on rigid surfaces but also on surfaces that undergo binding and creasing. Increasing the percentage of the catalyst in the mixing can increase the standard of elasticity of the ink.

##### **4. Extra-glossy finish and good opacity**

Epocat inks are very opaque, they have a very glossy finish in every colour and they give a very thick film.



### METHODS OF EMPLOY

#### Mixing preparation

Right before printing it is necessary to mix coloured pastes with the catalyst.

The mixture can be used for nearly a working-day (6 – 8 hrs); therefore it is advisable to prepare a right amount of ink. The chemical and physical properties of the ink vary, depending on percentage of catalyst used.

Using ratio in weight of **4 parts of inks**  
**1 part of catalyst**

the highest elasticity of the ink is obtainable, therefore it can stand binding very well.

Using a ratio in weight of **6 parts of inks**  
**1 part of catalyst**

the highest chemical resistance and hardness of ink is achievable.

Then it is possible to vary, depending on the work, the ratio of the catalyst in the mixing.

#### Thinning

These inks have to be thinned up to 10% with the suitable thinners. Like for the other two-component inks after printing, it is necessary to clean the screen very properly in order to avoid that the ink becomes hard among the meshes of the screen, damaging irreparably the stencil.

#### Drying and Curing

At room temperature Epocat inks dry up after 2-3 hours, but the curing process lasts for the following hours till 3-4 days after printing. Regarding adhesion and chemical resistance, the best results are achieved submitting the ink to forced-drying in the ovens, if possible; also air convection ovens can be used. The following values for oven drying are merely indicative:

- For plastic materials: 70-80°C for 10-15 minutes
- For metals or glass: 150°C for 30 minutes

#### **RANGE OF COLOURS -COMPLEMENTARY PRODUCTS**

All range of 18 standard shades of colour chart of glossy inks are provided together with a matting mixing paste that is added to obtain matt and satin finishes.

#### **\*\*New Catalyst:**

Instead of standard Epocat Catalyst 244 is possible to use a new product that was recently developed by our laboratory in order to increase adhesion on very difficult materials.

#### **Epocat Catalizzatore 260:**

Mixing ratio: 4 part of ink 1 part of Catalyst.

This catalyst is strongly recommended when the product cannot be cured in an oven but should be left at room temperature



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