



# Silk Screen Inks

## Products Information

[www.sabinecolors.com](http://www.sabinecolors.com)



## Extrapack Inks (EA2000)

### PROPERTIES

EA2000 is a gloss finish, solvent-based, one / two-pack ink specially formulated for printing pretreated polyethylene and polypropylene. EA2000 can be thinned for use with high-speed automatic or semi-automatic printing machines. These inks are very fast drying, have excellent adhesion and good resistance to a wide range of products such as bleaches, motor oils and most detergents. They are also resistant to cosmetics and products containing alcohol such as certain lotions and perfumes. EA2000 is also suitable for printing onto various types of aluminum as it is very fast drying and has excellent adhesion. Please see the section on "Metal printing".

### Instructions for Use

#### Thinning and Cleaning

- Stir well before use.
  - EA2000 inks should be thinned 5-10% with Thinner 13019 before printing.
  - 5-10% Retarder 13018 can be used to make the ink dry more slowly when printing in a warm room or when using screens with high mesh counts.
  - Cleaner C170 should be used to clean EA2000 from the screen. For heavy ink stains, Screensolve can be used.
- Please refer to the relevant P.I. Sheets for more information.

### Catalyst

EA2000 can be used for printing immediately after it has been mixed with appropriate amount of solvent (see above). For certain applications where product resistance needs to be developed very soon after printing, a catalyst is available. These applications include 'in line' filling manufacturing plants where products, such as washing-up liquid, are filled into the container immediately after printing and drying. EA should be catalysed prior to thinning as follows:

EA2000 ink        9 parts (by weight)  
EA2000 Catalyst. 1 part (by weight)

Note Once catalyzed, EA2000 has a pot life of about 24 hours. To avoid any problems with thickening, only mix up enough ink for one day's use.

### Pre-Treatment

For optimum adhesion, it is recommended that the substrate be given flame treatment or corona discharge immediately prior to printing. The most appropriate pre-treatment is flame treatment using constant force and circulation of propane or butane gas with air. Discharge of static electricity can be found with some packaging products and this may reduce the adhesion feature of the ink. To prevent this from occurring, pass the container through ionized air immediately prior to the printing operation.

### Printing

- EA2000 can be printed through any type of mesh, but for the best printing results it is recommended that monofilament P90-40 to P140-34 or higher be used.
- EA 2000 can be printed through a variety of solvent resistant stencils, such as Diazol Universal (PU220) and Diazol (S42).

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- A snap distance of about 2-3 mm is required for a good release of the print from the screen.
- 1Kg of ink will print an area of 23-43 m<sup>2</sup> through a P90-40 to P140-34 mesh.

Due to the wide range of substrates available, it is advisable that the ink be tested fully prior to printing.

## **Metal Printing**

Below is the adhesion comparison test result of Extrapac EA 2000 inks with a dull mill-finished aluminum, a bright polished aluminum and a stove enamel coated metal:

<b>Dull Mill Finished Aluminium</b>	<b>Bright Polished Aluminium</b>	<b>Stove Enamel Coated Metal</b>
Good	Very Good	Very Good

The above test results were obtained after the printed substrates had been cured in the oven at 120°C for two minutes. The printing surface should be cleaned before EA 2000 is printed onto the metal. Ink and substrate compatibility tests should be carried out prior to printing.

## **Drying**

EA2000 can be cured at 80-85°C in 25-100 seconds. This ink can also be dried at the normal room temperature in about 5-15 minutes, depending on the ambient temperature. It is recommended that the prints pass through a convection oven or fan dry before handling. The dried ink film will have optimum product resistance after 24 hours at room temperature.

## **Plastics**

Always fully test the ink before beginning a production run, as there is often considerable variation in plastics from different manufacturers and even between different batches.

## **Metallic Colors**

Metallic shades can be obtained by mixing Extrapack EA2000 Varnish with Gold or Silver Powder. Once mixed, these metallic colors will have a short shelf life. The product resistance of metallic inks is usually inferior to the non-metallic colors.

**PRODUCT RESISTANCE.** Extrapack EA2000 inks have resistance to:

1. Detergents
2. Mild bleaches
3. Motor oils
4. Cosmetics
5. Alcohol

However, they are not resistant to strong bleaches and Polypack Ink PP is recommended instead. Extrapack inks are not recommended for outdoor exposure.

## **COLOUR RANGE**

EA2000 ink system consists of 18 unleaded colors: (Sabinecolors Matching System) Base Colors and 9 Standard Colors. The vibrant SMS base colors with EA2000 standard colors of Black, White and Extender Base, can easily be mixed into almost all colors (Caution: each color shade has different a level of product resistance). Black EA/100 and white EA2000/290 have high color intensity and are therefore recommended for color matching. The SMS colors can be used for direct printing, but are relatively transparent and are therefore not recommended for jobs that require a high level of opacity.

## **Solvents**

13019 Thinner 13018 Retarder SWT139S Cleaner

## **STORAGE**

EA2000 inks should be stored in a sealed container between 5-25°C.

## **SAFETY AND HANDLING**

EA2000 inks should be used with care. Wear suitable PPE, for example, appropriate gloves and safety glasses. All colors comply with the following standards: EN71 Standard of the European Economic Community, the United Kingdom Toys (Safety) Regulation 1974 the DIN EN 71 Standard of Germany and French Toys Standard NF 551204. EA2000 inks are flammable with a flash point of 43°C/109°F. Whilst working with the ink, the consumption of food and drink, and smoking are not recommended.

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