UNION INKS

Product Information

UNI-FAST SCREEN INKS
66-00 SERIES

TIL NO: 203

PROPERTIES

Oxidation drying screen printing ink specifically formulated for screen printing onto treated polyethylene, paper and board, wooden boards, drum markings as well as on metal / aluminium surfaces.

- Easy printability with exceptional covering power and opacity
- Good resistant to a wide range of products
- Resistant to alcohol
- Excellent adhesion on polyethylene with a treatment level of 46 - 48 dynes / cm^2 (Union Carbide Surface Tension)

APPLICATIONS

This ink series is designed for screen-printing onto untreated rigid polyethylene bottles and gives good product resistance with regard to most products, which are packed in polyethylene. It can also be used for printing on paper and boards, drum markings, metal and aluminium substrates.

SCREENS

Stencils must be solvent resistant. For fine details use 120 threads/cm fabrics, while 77 threads/cm fabrics are recommended for large areas or where higher opacity is demanded.
For screen wash-up, use White Spirit.

THINNING

- Fast Reducer: 66-T102
- Normal Reducer: 66-T104
- Slow Retarder: 66-T106

Thinning ratio varies depending on printing and drying conditions from 10 to 20% maximum.

PRINTING

Prior to use ink must be thoroughly stirred and thinned according to printing parameters. Printing should be off contact with well-sharpened polyurethane squeegee of average shore hardness of 70-75 shore. Soon after use clean the screen and other equipment with proper solvents.

DRYING

The ink dries by oxidation and can be air dried overnight in a stand or rack or can be dried in a drying tunnel at 70 - 80^0 C for 3 minutes. For metal substrates, best results is achieved by baking the prints in the air convection oven at 120 ^{0}C for 10 minutes.

PRODUCT RANGE

The standard basic shades are in the SSI screen ink colour guide.

- Trichromatic colours for process colour printing.
- 66-185 Extender mediums to reduce unit cost of the ink.
- 66-186 Gel mediums to lower shade intensity without affecting ink original physical properties.
- 66-195 Transparent mediums to modify the properties of pigmented ink or as an overprint varnish.
- 66-D100 Base mediums for the preparation of metallic ink.

The basic ink shades are: -

Code	Colours
66-P113	N.T. Yellow
66-Y115	N.T. G. Yellow
66-S123	N.T. Orange
66-R100	Red
66-M100	Magenta
66-PM100	Pro Magenta
66-V100	Violet
66-B100	Blue
66-G100	Green
66-K100	Black
66-W100	White

POT LIFE

When exposed to atmospheric air, a skin will form on the surface within a few hours and this must be removed before printing, as it is not soluble in the ink. It is therefore recommended that the surface of unused ink be covered with a piece of foil or wax paper, sealing off the total ink surface.

STOCK AND SURFACE TREATMENT

This ink is designed to give adhesion on to pre-treated polyethylene. Untreated polyethylene has an inert surface, which does not give ink adhesion. To render the surface ink receptive and to ensure good ink adhesion, it must be activated by flame treatment. It is recommended that printing be carried out as soon as possible after flaming.

It is emphasize that while chemical methods such as methylene blue/nitroethane may give an indication of whether or not a bottle has been treated, they do not necessary show whether the treatment is satisfactory. The most successful method of assessing treatment level is by the Union Carbide Wetting Tension Test. However, a variety of additives are included in the polymer and on some occasions, these may have a detrimental effect on ink adhesion. The only reliable test is to make print and assess adhesion both immediately after printing and after storage.

It has been established that for given ink, there is an optimum level of treatment that gives maximum adhesion and product resistance. Over-flaming can results in print with good adhesion but little or no product resistance. This optimum level should be established to suit the printer's particular conditions. The use of treatment level for all ink will not necessarily give the best results in all circumstances.

PRECAUTIONS FOR USE AND STORAGE

This material is not hazardous when used with a reasonable standard of hygiene and safe working practice. However, as with all chemicals, skin contact should be avoided and any contamination must be washed with plenty of water. In case of eye contamination, irrigate with plenty of water and seek medical advice. Store product in a cool place and shelf life is about 12 months at 25 ^{0}C .

WARNING

This information is given in good faith, but without any guarantee as the printing conditions of our inks are beyond our control. In the event of complaints, the ink supplier may replace free of charge the unused ink, declining any other responsibilities.