



UNION INKS

Product Information

UVI-METAL SCREEN INKS

77-00 SERIES

TIL NO: 807

APPLICATION AND PRINTING

UVI-METAL 77-00 Series is single pack ultraviolet curable ink formulated to adhere over both coated and uncoated metal including aluminium surfaces.

SCREENS

The cure characteristics and colour intensity of the Uvi-Metal colours were developed using 150 - 34 threads / cm or 380 threads / inch mesh.

The use of more open mesh like 120 - 34 threads / cm can be used to improve the opacity of 77-00 series by increasing ink deposit, but care must be taken as this will reduce the cure efficiency and in extreme cases, this could affect the adhesion of the ink or leave an uncured layer of ink.

The use of finer mesh (165 threads / cm) deposit a lower ink build, this reduces the colour intensity and opacity. The 77-K100/1 Black and 77-W100/1 White opaque shades should be printed with 150-31 or 165-31 threads / cm or finer to ensure a complete cure.

THINNING

Uvi-Metal ink is a pre-initiated, one part system, and ready to print from the container. If necessary, its viscosity can be reduced with UV Reducer 77-T102. Thinning ratio varies depending on printing conditions but do not exceed 5% by weight.

PRINTING

Prior to use ink must be thoroughly stirred and if necessary, 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.

CURING

Uvi-Metal ink will cure on all commercially available UV Curing Dryers. Cure speeds will depend on exposure time or line speed, wattage output, ink deposit and UV intensity. As a guide, printing using 140 threads/cm, UV energy required to cure the ink film is about 1600-1800 millijoules / cm⁻¹ on a UV-V spectral response.

SPECIAL PRECAUTIONS

The ink will show poor adhesion on certain Metal Surface especially raw tin plates that may need treatment. Always test for adhesion before production.

The cured ink film is also hard and brittle, thus not suitable for bending or subject to metal forming.

PRODUCT RANGE

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

- Trichromatic colours for process colour printing. (77-Y500 Yellow, 77-M500 Magenta, 77-B500 LD Blue and 77-K500 Black).
- 77-185 Extender medium to reduce the opacity and increase curing of the ink.
- 77-187 Process medium to lower shade intensity without affecting ink original physical properties.
- 77-D100 Metallic medium
- Metallic Finishes - supplied in two packs

The basic ink shades are:

CODE	COLOURS
77-P113	PRIMROSE YELLOW
77-Y114	GOLDEN YELLOW
77-S123	ORANGE
77-R100	RED
77-M100	MAGENTA
77-V100	VIOLET
77-B100	BLUE
77-G100	GREEN
77-K100	BLACK
77-W100	WHITE

COLOUR MATCHING

Union Inks offer a full in house colour matching service from 1 kilo.

PRECAUTIONS FOR USE AND STORAGE

Direct or prolonged ink exposure to light sources with UV contents should be avoided. Avoid contact with skins and eyes. If the ink comes in contact with the skin, promptly wash off with water and soap. If eye contact occurs, immediately wash off with water for 15 minutes and seek medical advice. Wash area has to be effectively ventilated. Store product in a cool place and shelf life is about 6 months at 25 degrees 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.