

# Technical information

## Screen Inks



# Micro UV - UPL

Fast Cure Speed, High Gloss Finish, Opaque

## UV Screen Inks for Graphics



### Substrates:

UV cure inks for flexible and rigid PVC, Polystyrene, HIPS, Polycarbonate, Acrylic, Cellulose acetate

### Application

Micro UV -UPL is the range of specially designed, fast curing, low odour UV screen printing inks with bright opaque shades. It has excellent flexibility, adhesion, weather resistance and most common solvent resistance. Micro UV -UPL has high gloss and it thixotropic in nature giving excellent print sharpness. Widely applicable for outdoor display, advertising panels, signs, window graphics, labels and self -adhesive stickers. They are V -Pyrol free

### Characteristics

- Excellent light fastness property due to specialized fade resistance pigments used (Blue wool scale 7 -8)
- Excellent flexibility, adhesion, weather resistance, alcohol and petrol resistance
- Very fast cure speed -suitable for rapid production
- Thixotropic in nature - does not drip through mesh when the machine is standstill
- Ideal for 4 -colour process inks job
- High colour strength for the range of shades and matching system
- Non-toxic, meets EN- 71 part 3 Toy safety standard for heavy metals

### CURING

Ultraviolet cure inks are dependent on high dosage of UV light to initiate curing process that converts from wet to dry film. The light must see through or penetrate the layer of ink to achieve proper cure

In a curing one 200-watt/inch (80 watt/cm) lamp, the cure speed 14-35 meter per minute are common.

Cure speed depends on colours, film thickness, opacity and condition of the curing unit

### Range

Micro UV-UPL Matching System : Almost any shade can be matched by mixing the selective inks of the matching system which comprises of the basic shades as follows :

Match Light Yellow	UPL - 101	Match Violet	UPL - 141
Match Mid Yellow	UPL - 102	Match Ultra Blue	UPL - 151
Match Deep Orange	UPL - 111	Match Deep Blue	UPL - 152
Match Scarlet Red	UPL - 121	Match Green	UPL - 161
Match Carmine Red	UPL - 122	Match Tinting White	UPL - 171
Match Magenta	UPL - 131	Match Tinting Black	UPL - 181
Mixing Clear Base	UPL - 191	Mixing Extender Base	UPL - 192

### Spot Colours

Bright Yellow	UPL - 201	Reflex Blue	UPL - 253
Light Orange	UPL - 211	Yellow Green	UPL - 261
Vermillion	UPL - 221	Grass Green	UPL - 262
Brilliant Red	UPL - 223	Forest Green	UPL - 263
Purple	UPL - 241	Opaque White	UPL - 271
Sky Blue	UPL - 251	Brilliant White	UPL - 272
Royal Blue	UPL - 252	Dense Black	UPL - 281

## Process Colour :

Cyan	UPL - 401	Density : 1:5
Magenta	UPL - 402	Density : 1:4
Yellow	UPL - 403	Density : 1:3
Black	UPL - 404	Density : 1:8

The density values are arrived at by using 150.31 T mesh. By adding Extender Base UPL - 192, the ink density can be reduced. The ink density can be increased by adding ink concentrated for the process colours in required proportion or by using a coarser mesh

A coat of Over Print Varnish UPL-193 on the whole printed area will extend the period of out-door fade resistance and scratch resistance

## Metallic Inks (Bronzes) :

Rich Gold	SH - 801
Rich Pale Gold	SH - 802
Pale Gold	SH - 803
Silver	SH - 804
Metallic Clear Base	UPL - 191

The metallic ink made by mixing the metallic pigment with Metallic clear Base should be processed within 6-8 hours

**Yield :** A very high yield of 75-95 sq. meters. with 140.34T to 165.31T can be achieved

## Auxiliaries

**Reducer :** Stir well before use. The viscosity of Micro UV - UPL is supplied in a press ready condition for most printing applications. It may be necessary to thin slightly up to 3-5% with Curable Reducer UAX-901 cylinder press users as a special application

### UAX - 278 UV Gel Tack Reducer

Maximum 5% may be added to reduce tack and colour strength of ink without changing viscosity.

### UAX - 283 UV Screen Initiator for Black and Dark Colours

Maximum 5% may be added to increase curing rate of UPL inks.

### UAX - 284 UV Screen Initiator for White and Tint Colours.

Maximum 5% may be added to increase curing rate of UPL inks

### UAX - 206 UV Screen Cleaning Aid

**Over Print Varnish UPL-193 :** For improvement of fade resistance of the print

## Accessories :

**Fabrics :** Micro UV-UPL prints and cures well through mesh between 355-420 per inch (140-165 per cm.) mono filament polyester

**Stencils :** Stencil material must be solvent resistant and produce thin film stencil (3-6 microns over mesh.)

**Squeeze :** Generally 70-80 durometer sharp edge squeezes are suitable

**Material Safety Data Sheet** is available on request

**Note :** The Technical information sheet reflects the current state of our knowledge. This information is compiled based upon field experience and extensive laboratory testing. However, customers are requested to satisfy themselves that the products meet their requirements in all respects before starting a print run. Since the printing conditions are not under our control, no guarantee can be given for their performance.