

Technical information

Screen Inks



Micro UV - UPP

Fast Cure Speed, High Gloss Finish, Opaque

UV Screen Inks for Graphics & Packaging



Substrates:

UV cure inks for treated polyethylene and polypropylene, varieties of papers

Application

Micro UV-UPP is the range of fast curing, low odour UV curing screen inks and has opaque and brilliant shades with high gloss. It has versatile uses like decoration of plastic containers for packaging industries, labels and stickers. It can also be used on high speed rotary screen printing machines

Characteristics

- Excellent adhesion on treated PE and PP substrates
- Excellent resistance to most solvents, detergents, lubricants
- Very fast cure speed-suitable for high speed print run
- High gloss finish
- Brilliant colours with high opacity
- Thixotropic nature
- 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 unit containing one 300 watt/inch (120 watt/ cm) lamp, the cure speed of 14-35 meter per minute are common
Cure speed depends on colours, film thickness, opacity, power of UV lamps and condition of the curing unit

Range

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

Spot Colours

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

Process Colour :

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

The density values are arrived at by using 150.31 T mesh. By adding Extender Base UPP - 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 UPP-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	UPP - 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 - UPP 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

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

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 UPP inks.

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

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

UAX - 206 UV Screen Cleaning Aid

Accessories :

Fabrics : Micro UV-UPP 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 squeeze is 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.