Technical Information

Screen Inks I Packaging Printing

PACK PK

Quick drying, Glossy finish, Opaque

Substrates

Pre-treated Polyethylene, Polypropylene, Coated substrates, Metal, Thermosetting plastics

Application

PACK PK inks are specially formulated solvent based quick drying inks to print packaging containers and articles of polyethylene, HDPE, polypropylene. These inks are suitable for high - speed automatic printing machines. The surface of these substrates should be pre-treated by flaming or corona discharge so as to get surface tension of 42 - 48 dynes/cm which is necessary for the adhesion of the ink. For polypropylene, the surface can also be pre - treated by applying a thin coat of PP Primer AX - 701

By adding Hardener HDR - 602 or HS 6254 the ink can also be used to print on thermosetting plastics, coated substrates and metal. With the addition of the hardener, further improvement in respect to adhesion, mechanical resistance and resistance to lubricants and detergents can be achieved. The Mixing ratio of ink and Hardener HDR - 602 Or HS 6254 is 10:1 by weight and the Pot-life of the mixture of ink and hardener will be 8 to 10 hours at room temperature of 25º C

Characteristics

- Quick drying solvent based inks – suitable for rapid production
- Good printability and screen stability
- Excellent adhesion
- High gloss finish
- Good weather resistance with moderate fade resistance pigments

Drying

The print becomes tack free dry in 5 to 8 min. and hard dry in 30 to 45 min. at a temperature of 25º C making them suitable for stacking. It takes about 1 to 2 min. to become tack - free dry when passed through a tunnel oven at 50 to 70ºC

Range

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

Spot Colours

Bright Yellow	PK - 201	Sky Blue	PK - 251
Light Yellow	PK - 301	Royal Blue	PK - 252
Mid Yellow	PK - 302	Reflex Blue	PK - 253
Light Orange	PK - 211	Yellow Green	PK - 261
Deep Orange	PK - 311	Grass Green	PK - 262
Vermilion	PK - 221	Forest Green	PK - 263
Scarlet	PK - 322	Opaque White	PK - 271
Brilliant Red	PK - 223	Brilliant White	PK - 272
Purple	PK - 241	Dense Black	PK - 281

Note - PK - 301, PK - 302, PK - 311, PK - 322 is Lead containing inks

Process Colours

Cyan	PK - 401	Density 1.5
Magenta	PK - 402	Density 1.4
Yellow	PK - 403	Density 1.3
Black	PK - 404	Density 1.8

The density values are arrived at by using 120.34 Polyester mesh at a dilution of 10 % with Reducer. By adding Clear Base PK - 191, the ink density can be reduced. The ink density can be increased by adding ink concentrates for the process colours in required proportion or by using a coarser mesh

Coverage

65 - 75 sq. meters. (with 120.34 mesh and 10 - 15 % dilution with Reducer/ Retarder)

Metallic Inks (Bronzes)

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

Recommended mixing ratio of Metallic Gold Pigment with PK - 191 (without hardener) is 1:4 to 1:6
Recommended mixing ratio of Metallic Silver Pigment with PK - 191 (without hardener) is 1:4 to 1:6
Mixing ratio of mixture of metallic pigment & Clear Base with Hardener HRD - 601 is 10:1
The metallic ink made by mixing the metallic paste with metallic binder should be processed within 6 - 8 hours

Auxiliaries

Rheology Improver - SRIPH - 9008 can be added 10 to 20 % to the ink to get a desired consistency.
Slow Rheology Improver - SRIPH - 9003 can be added 10 to 20 % to the ink to get a desired consistency when required to make the ink slow drying. Even a suitable combination of the Retarder with the Reducer can be used to get a desired retarding effect
Over Print Varnish PK - 193 - For improvement of scratch and fade resistance of the print.

Accessories

Mesh - Polyester or Nylon mesh of 100 - 140T are suitable. Even 77 - 90T can be used depending upon the type of job & the substrate to be printed to achieve desired opacity or print effect

Stencils - All solvent resistant Emulsions & Films can be used

Squeegee - Generally, 65 to 75 durometer sharp edge squeegees are suitable

Shelf Life

Atleast 12 months when stored in clean & dry place. Avoid direct sunlight

Note - Material Safety Data Sheet is available on request