UVIPAK PE SERIES

UV Packaging

UV Ink for Polyethylene Containers

Features

- Gel-Structured Ink Body to Eliminate Ink Drip Through
- Excellent Opacity
- Monopigmented Seritone Matching System for Bright, Clean Colors
- Outstanding Water and Product Resistance
- Photoinitator Package Designed for Optimal Cure
- Extremely High Gloss
- Ink Rheology Formulated to Provide High Quality Graphics (including fine type)

Substrate Application

Media Type
Treated Polyethylene Containers
Some Treated Polypropylene Containers

Thinning

Stir well before every use. UviPak PE series is supplied in a press ready viscosity for most printing applications. Thinning of the ink is not recommended. If necessary, for special applications, use no more than 5% PE-TH thinner.

Mesh

UviPak PE prints well through 355 to 420 (140 to 165/cm) monofilament polyester fabrics.

Stencils

Stencil materials must be solvent resistant and produce a thin film stencil (3-6 microns over mesh).

Curing

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

The UviPak PE series inks are designed to cure at line speeds up to 90 bottles per minute depending on the type of curing unit in use and bottle size. Cure speeds are dependent on color, film thickness, opacity, and condition of the curing unit.

If under-cure is experienced with any color, demonstrated through a wet film or loss of gloss, it is usually due to excessive ink deposit. To correct this, the mechanics, such as mesh, squeegee, color density, machine speed, or the amount of UV energy should be changed.

Reduction of color density is easily achieved by letting the color down with PE-MX (Mixing Clear) until proper cure is obtained.

Cross hatch tape adhesion should be at least 80% immediately out of the reactor/cure unit with final adhesion developing in one to four hours. If total cure on a given substrate with a specific color needs to be established, the piece should be passed through the reactor one or two times. This usually will promote final adhesion. Flame treatment of containers is also recommended to improve adhesion. Full water and/or product resistance is achieved within 24 hours of complete cure.

Coverage

Standard line colors should yield 2,800 to 3,500 square feet/gallon (64 to 80 m^2/liter) depending on film thickness.

Wash Up

Wash up on press with Xtend™ press washes and after the production run with Xtend™ ink degradents.

Pre-Production Tests

It is strongly recommended that all substrates be tested before use as supposedly similar substrates can vary between manufacturers and even between different batches from the same manufacturer. Certain plastics may be impregnated with lubricants which, like plasticizer migration, may impair adhesion and block resistance, even a considerable period after printing. Other plastics can become brittle or caused to curl after printing.

END-USER MUST DETERMINE SUITABILITY OF THIS PRODUCT FOR THE INTENDED USE PRIOR TO PRODUCTION.

Special Matches

Special colors can be supplied against prints, wet ink, PANTONE® numbers, or other Nazdar standard colors.

Product Information

NAZDAR
INK TECHNOLOGIES

Uvipak PE Series

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Compatibility with Other Inks

It is not recommended that the UviPak PE ink be mixed with any other NAZDAR Nazdar inks or inks from other sources. The unique gel-structured rheology of the UviPak PE series will be adversely affected if this is done.

Seritone Matching System

The UviPak PE series ink uses the Seritone Matching System (SMS). The SMS system has been designed to enable printers to readily match PANTONE® and most other colors in-house. The system consists of SMS base colors, each of which has been selected for its cleanliness of tone and suitability for intermixing. Using the SMS base colors plus the Shading Black (PE-SB) and Tinting White (PE-TW), almost any color can be produced.

All colors have been formulated to contain no pigments which contain lead or other heavy metals. These products are formulated to meet CONEG Packing Legislation. If necessary, certification of lead and heavy metals content can be obtained from an independent laboratory.

Metallics

A special Metallic Mixing Clear (MX) is recommended for use with all metallic powders. The viscosity of the PE-MMC offers good powder suspension, excellent cure speeds, and very good mixed shelf life. Recommended ratios of mixture are 8% by weight of silver powder and 20% by weight of gold powder. Meshes should range from between 355 to 420 (140 to 165/cm) monofilament polyester with a thin thread diameter (27 to 31 micron). Due to the possibility of chemical changes after mixing, it is recommended that metallic shades be mixed fresh daily.

Recommended mixing ratios	UV Metallic Pastes	Metallic Powders
Silvers (aluminum)	12% by weight	8% by weight
RS Gold	22% by weight	20% by weight
GS Gold	25% by weight	20% by weight

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Special Modifications

PFS28435 UV Anti Static Agent can be added to aid in static reduction. It is recommended that PFS28435 be added in increments of 1%, up to a total of 5% by weight.

Standard Color Range

PE-026 Brilliant White
PE-141 Fire Red
PE-210 Ultra Blue
PE-301 Opaque Black
PE-311 Opaque White
PE-600 Chartreuse
PE-605 Yellow RS
PE-620 Orange
PE-640 Rocket Red
PE-650 Pink
PE-680 Purple
PE-MX Metallic Mixing Clear

Product Information

NAZDAR INK TECHNOLOGIES

Uvipak PE Series

Seritone Colors

PE-062	IMS	VGS Yellow
PE-064	IMS	Yellow GS (Green Shade)
PE-066	IMS	Yellow RS (Red Shade)
PE-114	IMS	Orange
PE-121	IMS	Red YS (Yellow Shade)
PE-127	IMS	Violet
PE-129	IMS	Maroon
PE-164	IMS	Red BS (Blue Shade)
PE-165	IMS	Magenta
PE-167	IMS	Carmine
PE-230	IMS	Blue GS (Green Shade)
PE-233	IMS	Blue RS (Red Shade)
PE-235	IMS	Blue RS
PE-325	IMS	Green
PE-OP	IMS	Overprint Clear
PE-SB	IMS	Shading Black
PE-TW	IMS	Tinting White
PE-MX	IMS	Mixing Clear

Halftone Colors

PE-HTY	Halftone Yellow
PE-HTB	Halftone Blue
PE-HTR	Halftone Red
PE-HTK	Halftone Black
PE-HTX	Halftone Extender Base

Reducers/Modifiers

PE-TH	Thinner
PE-AST	Anti-Static Additive
PFS28435	UV Anti Static Agent

Storage

Containers should be tightly closed immediately after use. At the end of long printing runs, surplus ink from the screen should be disposed of. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided. In the interest of maximum shelf life, storage temperatures should be between 50°F (10°C) and 77°F (25°C). When stored under these conditions the maximum shelf life is shown by the use by dates, which are clearly marked on all ink containers.

Safety and Handling

Refer to MSDS for safety, handling, and waste disposal information.

Product Information

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