

GLOSS POLY



Gloss UV Ink for Corrugated Plastics and Polyethylene Materials

Features

- Press Ready
- Fast Cure Speeds
- High Gloss Finish
- Excellent Flexibility and Intercoat Adhesion
- Superior Printability for Large Format Work
- Wide Adhesion Range

Substrate Application

Media Type
Coroplast®, Cor-X®, and Other Fluted Polyethylene/Polypropylene Stocks
Most Polyethylene Banner Materials
Many Linear Polyethylene Stocks
Polystyrene
Many Rigid Plastics

Thinning

Stir well before every use. Gloss Poly inks are supplied in a press ready condition for most printing applications. It may be necessary to thin slightly (3-5% with GP-TH Thinner) for cylinder press users or special applications.

Mesh

Gloss Poly prints and cures well through 390 to 420 (150 to 165/cm) plain weave monofilament polyester. For optimum flexibility on poly banner and other unsupported substrates, every endeavor should be made to minimize ink film thickness.

Stencils

Stencil materials must be solvent resistant and produce a thin film stencil (3-5 microns over mesh).

Curing

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

In a curing unit containing one 200-watt/inch (80-watt/cm) lamp, cure speeds of 40-50 feet (12-15m) per minute are common for rigid stocks. To minimize stock shrinkage or distortion, Poly Banner materials should be cured with one 200-watt/inch (80-watt/cm) lamp at belt speeds of 60 to 70 (18-21m) per minute. Cure speeds are dependent on colors, 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, belt speed, or the amount of UV energy, must be changed.

Reduction of color density is easily achieved by letting the color down with MX (Mixing Clear) until proper cure is obtained. Adhesion should be at least 80% immediately out of the reactor with final adhesion developing in two 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 more times. This will usually simulate final adhesion.

Coverage

Standard line colors should yield a coverage of 2800 to 3500 square feet/gallon (64 to 80 m²/liter) depending on film thickness.

Wash Up

Wash up on press with press washes and after the production run with ink degradants.

NAZDAR
INK TECHNOLOGIES

Product Information

GLOSS POLY

Pre-Production Tests

Gloss Poly has been formulated to adhere to most polyethylene and some polypropylene substrates with surface tension levels of 42-46 dyne/cm or higher. However, 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 that, 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.

Banner Applications

For optimum performance on polyethylene banners, the addition of Gloss Poly Adhesion Modifier (GP-AM) is required. GP-AM should be added 3% to 5% by weight, and once mixed, has a pot life of four to six hours. Unused ink with GP-AM should be disposed of. Due to the temperature sensitivity of most polyethylene banner materials, care should be taken when curing to minimize shrinkage. Pre-shrinking prior to the first color of multicolor jobs is advised.

Success of post printing processes such as hemming, sewing, and/or grommeting is very ink film thickness related. Thin ink films (10 to 15 microns) are more flexible and will, therefore, be more successful in these finishing processes.

ALWAYS PRE-TEST FINISHING PROCESS(ES) PRIOR TO PRODUCTION.

Outdoor Use

Accelerated weathering tests indicate Gloss Poly has an exterior life of up to one year on rigid stocks and three to four months on most banner materials may be expected. Some rigid fluted stocks degrade rapidly in high humidity and sun exposure environments. To optimize ink adhesion under these conditions add 5% by weight Universal Catalyst 1269. Once catalyzed, the ink has a four to eight hour pot life.

Color Availability

The Gloss Poly color range includes nine base Seritone Matching System (SMS) colors, 11 standard colors, and the halftone colors.

The Seritone Matching System

The Seritone Matching System has been designed to enable printers to readily simulate PANTONE®* and most other colors in-house. The system consists of nine SMS base colors, each of which has been selected for its cleanliness of tone and suitability for intermixing. Using the SMS base colors plus Black, Tinting White, and Mixing Clear, almost any color can be produced.

Halftone Colors

Gloss Poly halftone colors are matched to "SWOP" standards (Specification Web Offset Publication). The densities are slightly higher than SWOP under most conditions and, therefore, offer scope for adjustment with the addition of halftone extender base.

Special Matches

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

*Pantone, Inc's check-standard trademark for reproduction and color reproduction.

Standard Colors

GP-111	Lemon Yellow
GP-123	Medium Yellow
GP-141	Fire Red
GP-155	Rubine Red
GP-180	Warm Red
GP-190	Process Blue
GP-205	Reflex Blue
GP-210	Ultra Blue
GP-221	Emerald Green
GP-301	Opaque Black
GP-311	Opaque White

Seritone Matching System Colors

GP-064	SMS Yellow GS (Green Shade)
GP-066	SMS Yellow RS (Red Shade)
GP-114	SMS Orange
GP-121	SMS Red YS (Yellow Shade)
GP-127	SMS Violet
GP-164	SMS Red BS (Blue Shade)
GP-165	SMS Magenta
GP-230	SMS Blue
GP-325	SMS Green
GP-TW	SMS Tinting White
GP-MX	SMS Mixing Clear

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Halftone Colors

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

Thinners/Modifiers

GP-TH Thinner
 GP-AM Adhesion Modifier

*Pantone, Inc's check-standard trademark for reproduction and color reproduction.

Metallic Powders

Metallic powders may be mixed with Gloss Poly Mixing Clear (GP-MX). The recommended mixing ratios are 8% by weight of silver powder and 20% of gold powder. The use of 305 monofilament polyester fabric is recommended, and GP-AM Adhesion Modifier must be used 3% to 5% by weight in conjunction with metallics. Due to the possibility of chemical changes after mixing, it is highly recommended that metallic shades be mixed daily.

Reducers/Modifiers

Gloss Poly has been formulated as a one part system for most materials with surface tension levels of 38 to 40 dyne/cm or higher.

However, low dyne and/or other questionable substrates, such as polypropylene, may require the addition of Gloss Poly Adhesion Modifier (GP-AM). GP-AM should be added 3% to 5% by weight, and once mixed, has a pot life of four to six hours. Unused ink with GP-AM should be properly disposed of as outlined in the MSDS.

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. Gloss Poly inks and reducers should not be stored in direct sunlight or extreme temperatures.

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.

The information and recommendations contained in this Technical Data Sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Technical Data Sheet out of date and users are requested to ensure that they follow current recommendations.

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