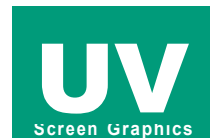


# UV BARRIER INKS



## Product Information

### Complete UV System to Create an Opaque Backing Print

#### Features

- Superior Opacity and Adhesion Properties
- Outstanding Flexibility
- Dual Component Package
- Non-Blocking Formulation
- Silicone Free Versions for use with Offset Inks
- Fast Cure Speeds

#### Substrate Application

| Media Type               |
|--------------------------|
| Static Cling             |
| Pressure Sensitive Vinyl |
| Low Tack Vinyl           |
| Rigid Vinyl              |

#### Thinning

It is essential to **thoroughly stir the ink** before use. Properly stirring the ink for three to five minutes using a high-speed agitation device is recommended. The VSG Barrier inks are designed to be press ready. If thinning is required, the ink should be thinned maximum of 5% by weight using Plastical UX thinner. It is recommended that thinner be added in 1% increments until desired viscosity is achieved.

#### Mesh and Squeegee

The VSG Barrier inks are recommended to be used with 305 to 355 count mesh made with low elongation monofilament polyester (120 to 140/cm<sup>2</sup>). The ideal squeegee durometers are from 70 to 85 and resistant to UV inks.

#### 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

Light energy level requirements vary from ink to ink and are dependent on a number of factors:

1. Ink chemistry
2. Color
3. Ink deposit (film weight)
4. Substrate being printed

For VSG Barrier inks the following guidelines are recommended:

**Minimum millijoules**—175 mJ/cm<sup>2</sup>—measured at the UVA component

**Minimum milliwatts**—500 mW/cm<sup>2</sup>—measured at the UVA component

Cure speeds are dependent on colors, film thickness, opacity and condition of the curing unit.

It is recommended that the energy output of the cure units be measured using a radiometer or similar equipment.

If under-cure is experienced with any product, 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, machine speed, or the amount of UV energy should be changed.

Cross hatch tape adhesion should be at least 80% immediately out of the reactor/cure unit with final adhesion developing in one to 24 hours.

**Note: VSG-BRW contains components that result in a greater sensitivity to visible light and, as such, will photochemically react under normal light. Containers should be kept covered at all times when not in use and remaining ink at the end of a run should be discarded and not mixed back in with fresh material.**

# UV BARRIER INKS

## Coverage

The VSG Barrier inks should yield coverage of 2,800 to 3,500 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 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 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.**

## Co-Use with Other Inks

It is not recommended that the VSG Barrier inks be **inter-mixed** with any other UV or solvent-based ink system.

The VSG-BRW and BRG can be **inter-printed** over and/or under the following Nazdar products:

|                        |                  |
|------------------------|------------------|
| Duracal DCL            | Plastical UX     |
| Fascure FC             | Fascure Plus FCP |
| Uvantage POP           | UviSPEED Rigid   |
| Fascure Satin FSN      | UviSPEED         |
| Flex Fascure Ultra ULT |                  |

The VSG-SFBRW and SFBRG should only be **inter-printed** over and/or under silicone free litho and/or UV screen printed inks.

## Barrier Products

|                 |                       |
|-----------------|-----------------------|
| VSG-BRW         | Barrier white         |
| VSG-BRG         | Barrier Grey          |
| VSG-SFBRW       | Silicone Free Barrier |
| White VSG-SFBRG | Silicone Free         |
| Barrier Grey    |                       |

## Thinner

UX-TH Thinner

## 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, waste disposal and regulatory information. 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 and ROHS Electrical and Electronic Equipment Directive. If necessary, certification of lead and heavy metals content can be obtained from an independent laboratory.

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.

Nazdar Ink Technologies

8501 Hedge Lane Terrace, Shawnee, KS 66227 USA

1-800-677-4657 | +1 (913) 422-2255

[www.nazdar.com](http://www.nazdar.com) | [NazdarOrders@nazdar.com](mailto:NazdarOrders@nazdar.com)

