11000 Series

PRODUCT INFORMATION

The 11000 Ink Series has been specifically formulated to adhere to a wide range of substrates while still offering substrate flexibility and water resistance.

APPLICATION FIELD

End uses include fabric banners, city pole banners, metal signs and point of purchase displays

APPLICATION PROCESS

Substrates	Treated Polyethylene, Treated Polypropylene, Coated Wood, Coated Metal, Nylon Fabric, Leather, Tyvek®, PVC
Th/cm	From 110 to 305 (43 to 120 cm), monofilament polyester is recommended.
Emulsion	Solvent proof or water-soluble emulsion only. Use a water-Soluble blockout.
Squeegee	Sharp 65 to 75 single durometer polyurethane blade
Ink Yield and Coverage	Colors should achieve a yield of 1,400 to 2,000 square feet per gallon (33 to 47 square meters per liter) depending upon on substrate selection, squeegee hardness, substrate absorption and press mechanics.
Drying	The 11000 Series will air dry in 10 to 20 minutes at normal room temperature. Force drying in seconds at 90° to 150° F (32° to 66° C). To prevent the blocking of material after printing, it is paramount to ensure that the temperature of the drying is not excessive and the air flow surrounding the material is good. Material blocking may occur if sheets are stacked when warm.
Cleaning	Wash up on press with a press wash and reclaim with degradents specifically developed for solvent-based inks. Do not use Mineral Spirits, Lacquer Thinner or other solvents used within other screen printing inks. The 11000 Series unique formula requires additives developed exclusively for this product line.
Storage	Store at room temperature, below 100° F (38° C). Always avoid open flames and excessive heat exposure. Protect from freezing.
Packaging	Available in quarts, gallons and five-gallon pails.
SDS	Available upon request

GENERAL FEATURES

- An extremely diverse adhesion range
- Flat non-reflective gloss level for outdoor applications
- Excellent durability and water resistance
- Up to 2 year light-fastness*
- Plastisizer migration resistant
- Automotive grade pigments

ADDITIVES AND THINNERS

Stir the ink well before every use. The 11000 Ink Series is supplied in a press ready condition for most applications and printing equipment, however certain additives may be required for different types of printing applications. Use TW-1073 Thinner or 11017 thinner for normal viscosity adjustments or to improve the inks flow by no more than 5 to 10% by weight. Retard with TW-1091 for fine detail printing, slow print cycles or high temperature conditions by no more than 5 to 10% by weight. For maximum adhesion to synthetic fabrics, inks must be thinned for better surface penetration. An over reduction with retarders and thinners can result in blocking and a

significant reduction in drying speed. Never exceed recommended levels of reduction.
Use 2 to 5% of TW-2919 Adhesion Promoter / Catalyst by weight to improve chemical resistance and adhesion. Please note however, that the addition of the TW-2919 Adhesion Promoter / Catalyst will result in a reduced pot life of 4 to 6 hours under most conditions. We strongly recommend mixing only enough ink for a estimated 4 to 6 hour period.

ADHESION TESTING

It is imperative that all substrates are tested prior to use within production. Even similar materials can vary between different batches, manufacturers or the age and storage time of the particular substrate. Certain types of fabrics may be manufactured with surface treatments which can impair ink adhesion and print performance. The 11000 Series has been specifically formulated to adhere to most polyethylene and polypropylene substrates with surface tension levels of 38 dyne/cm or higher. Once the ink has been fully dried and allowed to cool down, the adhesion should be tested by:

Cross Hatch Test—Using a sharp blade or cross hatch knife, cut through the film of the ink only, then Apply 3M #600 tape firmly on the cut area. Rub the tape down firmly then rip off. Ink should only come off in the straight cut areas.

PRODUCT RANGE

The 11000 Ink Series includes the Single Pigment Mixing Colors, Standard Colors and the Advanced Color Gamut™ four-color process inks.

Single pigment mixing colors

Code	
11001	GREEN SHADE YELLOW
11002	RED SHADE YELLOW
11003	YELLOW SHADE RED
11004	BLUE SHADE RED
11005	MAGENTA
11006	MAROON
11007	VIOLET
11008	RED SHADE BLUE
11009	GREEN SHADE BLUE
11010	BLUE SHADE GREEN
11011	YELLOW SHADE GREEN

Standard colors

Code	
11012	LEMON YELLOW
11013	MEDIUM YELLOW
11014	FIRE RED (also a single pigment color)
11015	RUBINE
11016	WARM RED
11017	EMERALD GREEN
11018	PROCESS BLUE
11019	REFLEX BLUE**
11020	ULTRA BLUE**
11021	OPAQUE WHITE
11025	OPAQUE BLACK
11030	MIXING CLEAR / OVERPRINT CLEAR

** 2 year out door light fastness

ADVANCED COLOR GAMUT™ Halftone colors

Code	
11040	HALFTONE YELLOW
11041	HALFTONE MAGENTA
11042	HALFTONE CYAN
11043	HALFTONE BLACK
11044	HALFTONE EXTENDER BASE

Additives / thinners

Code	
TW-1073	THINNER
TW-11017	THINNER
TW-1091	RETARDER
TW2919	ADHESION PROMOTER / CATALYST

*DURABILITY AND LIGHT-FASTNESS

Although outdoor durability cannot be specified exactly, accelerated weathering tests indicate that the 11000 Series Ink Line has an exterior life up to two years on most substrates, with exception to Reflex and Ultra Blue. Reflex and Ultra Blue has an exterior life up to one year. Variables within production and the end products use within the field will greatly affect a printed substrates durability.
A slight change in color and gloss level should be expected. Some chalking might occur with specific pigments on exterior exposure.

IMPORTANT NOTE

The information given in this technical sheet is not intended to be exhaustive and any person, using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us to the suitability of the product for the intended purpose, does so at his own risk.

While we endeavour to ensure that all advice we give about the product is correct, we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product.

Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of the product.

The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.