

The Economy 3600 Vinyl Banner Process Colors are UV screen inks specifically formulated for 4-color process printing of indoor and short term outdoor POP vinyl banner applications.

SUBSTRATES Vinyl banner

USER INFORMATION

While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. See full disclaimer at the end of the document.

MESH 355-420 tpi (140-165 tpcm) monofilament polyester mesh for most applications

STENCIL Solvent resistant, UV ink compatible direct emulsions and capillary films

SQUEEGEE 70-90 durometer polyurethane squeegee

COVERAGE 3,000 - 3,600 square feet (280 - 335 square meters) per gallon depending upon ink deposit

PRINTING Economy 3600 Vinyl Banner UV Process Colors are formulated to be press ready. Thoroughly mix the ink prior to printing. Maintain ink temperature at 65°-90°F (18°-32°C) for optimum print and cure performance. Lower temperatures increase the ink viscosity, impairing both flow and cure. Elevated temperatures lower the ink viscosity, reducing print definition, film thickness and opacity. Pretest to determine optimum printing performance for a particular set of ink, substrate, screen, press, and curing variables/conditions. The ink can be affected by stray UV light. Be aware of skylights, windows and overhead lights curing the ink in the screen. Leaving a container uncovered may result in the ink's surface forming a "skin," caused by reaction with room lighting or other stray lights. Keep containers covered. Light filters are recommended.

CURE PARAMETERS Economy 3600 Vinyl Banner UV Process Colors cure when exposed to a medium pressure mercury vapor lamp set at 200 watts per inch with millijoules (mJ) and milliwatts (mW) of:
80-100 mJ/cm² @ 600+ mW/cm².
These guidelines are intended only as a starting point for determining cure parameters, which must be determined under actual production conditions. "Undercuring" the ink may result in poor adhesion, block resistance, and higher residual odor. "Overcuring" the ink may reduce the flexibility of the printed part, and adhesion of subsequent ink layers. To increase mJ levels, slow down the belt speed or scan speed. To increase mW levels, increase the wattage setting of the UV reactor. To optimize mJ and mW output, maintain the bulb and reflector condition and focus to the substrate. The values mentioned above are representative of measurements taken using an EIT UVICURE Plus radiometer measuring the UVA bandwidth (320-390 nm). To obtain accurate mW readings with the UVICURE Plus, reduce the belt speed to less than 40 ft/min.

ADDITIVES	<p>All additives should be thoroughly mixed into the ink before each use. Prior to production, test any additive adjustment to the ink.</p> <p><u>Reducer:</u> Use RE306 to reduce the viscosity. Add up to 10% by weight.</p> <p><u>Gloss / Flattening Powders / Improved Slip:</u> Use CARE59 to reduce gloss and improve slip. Add up to 10% by weight. CARE59 should be power mixed into E3600 Process Colors.</p>
CLEAN UP	<p><u>Screen Wash (Prior to Reclaim):</u> Use IMS203 Economy Graphic Screen Wash</p> <p><u>Press Wash (On Press):</u> Use IMS301 Premium Graphic Press Wash</p>
STORAGE	<p>Store tightly covered at temperatures between 65°-90°F (18°-32°C). Ink taken from the press should not be returned to the original container; store separately to avoid contaminating unused ink.</p>
PROCESSING	<p><u>Finishing:</u> Economy 3600 Vinyl Banner UV Process Colors are suitable for 1-sided and 2-sided vinyl banner printing. Pre-qualify all finishing processes prior to a production run.</p>

GENERAL INFORMATION

INK HANDLING	<p>Wear gloves and barrier cream to prevent direct skin contact. Safety glasses are suggested in areas where ink may be splashed. If ink does come in contact with skin, wipe ink off with a clean, dry cloth (do not use solvent or reducer). Wash the affected area with soap and water. Consult the Material Safety Data Sheet for further instructions and warnings.</p> <p>Economy 3600 Vinyl Banner UV Process Colors are a one-part, 100% solids UV-curable screen printing ink which does not contain N-vinyl-2-pyrrolidone (trade name V-Pyrol®).</p>
ADHESION TESTING	<p>Even when recommended UV energy output levels are achieved, it is imperative to check adhesion on a cooled down print:</p> <ol style="list-style-type: none"> 1. Touch of ink surface – the ink surface will be smooth and slick. 2. Thumb twist – the ink surface will not mar or smudge. 3. Scratch surface – the ink surface will resist scratching. 4. Cross hatch / tape test – use a cross hatch tool or a sharp knife to cut through ink film only; then apply 3M #600 clear tape on cut area, rub down, wait for 1 minute and rip off at a 180 degree angle. Ink should only come off in actual cut areas.
WEATHERING / OUTDOOR DURABILITY	<p>At full strength and properly cured, Economy 3600 Vinyl Banner UV Process Colors are formulated to provide up to 6 month outdoor durability when mounted vertically in the Central U.S.A.</p>

PRODUCT OFFERING

HALFTONE COLORS	<p><u>Halftone Extender Base</u> is used to reduce the halftone color density.</p> <p><u>Standard Halftone Colors</u> are formulated with hues and densities matched to the high end of the SWOP standards.</p> <p><u>Dense Halftone Colors</u> are formulated with increased densities over the Standard Halftone densities and are designed for printers that want to have the latitude to adjust the density levels of their halftone inks.</p> <p><u>Medium Tack Rheology (MTR) Halftones</u> can achieve processing speeds for flatbed, clam shell and most in-line presses while maintaining dot quality with reduced dot pile.</p>
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ECONOMY 3600 VINYL BANNER UV PROCESS COLORS

TECHNICAL DATA SHEET

ADDITIONAL COLORS

Economy 3600 Vinyl Banner UV Process Colors do not include Standard Printing Colors or Pantone Matching System® Base Colors. When these colors are required, use 3600 Series colors (see the 3600 Series Technical Data Sheet). The Economy 3600 Vinyl Banner UV Process Colors and 3600 Series inks are inter-printable.

PACKAGING

All items listed below are available in gallon containers.

Stock Number	Standard MTR Halftone Colors	Stock Number	Dense MTR Halftone Colors
36EC140	Econo HT Ext Base (MTR)	36EC151	Econo HT Cyan Dens(MTR)
36EC141	Econo HT Cyan (MTR)	36EC152	Econo HT Mag Dense(MTR)
36EC142	Econo HT Magenta (MTR)	36EC153	Econo HT Yel Dense(MTR)
36EC143	Econo HT Yellow (MTR)	36EC154	Econo HT Blk Dense(MTR)
36EC144	Econo HT Black (MTR)	36EC156	Econo Hi Int HT Bk(MTR)

PACKAGING

Additives/Reducers are available in gallon containers.
Cleaners are available in gallon, 5 gallon, and 55 gallon containers.

Stock Number	Additives/Reducers	Stock Number	Cleaners
RE306	UV Reducer	IMS203	Economy Graphic Screen Wash
CARE59	UV Satin Paste	IMS301	Premium Graphic Press Wash

Nazdar® stands behind the quality of this product. Nazdar® cannot, however, guarantee the finished results because Nazdar® exercises no control over individual operating conditions and production procedures. While technical information and advice on the use of this product is provided in good faith, the User bears sole responsibility for selecting the appropriate product for their end-use requirements. Users are also responsible for testing to determine that our product will perform as expected during the printed item's entire life-cycle from printing, post-print processing, and shipment to end-use. This product has been specially formulated for screen printing, and it has not been tested for application by any other method. Any liability associated with the use of this product is limited to the value of the product purchased from Nazdar®.

Based on information from our raw material suppliers, these products are formulated to contain less than 0.06% lead. If exact heavy metal content is required, independent lab analysis is recommended.

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