4000 SERIES / BACKLIT HALFTONES UV SCREEN INK

SUPPLEMENTAL TECHNICAL DATA SHEET

4000 Series Backlit Halftones have been specially formulated with high saturation to provide intense color when finished prints are backlit. 4000 Series Backlit Halftones require a higher level of UV output to cure properly and careful processing as indicated in the following information. All other recommendations outlined in the 4000 Series Technical Data Sheet are the same for the 4000 Series Backlit Halftones. These items can be inter-printed with any of the 4000 UV screen ink colors.

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.

CURE PARAMETERS

4000 Series Backlit Halftones cure when exposed to single medium pressure mercury vapor lamp emitting output millijoules (mJ) and milliwatts (mW) values of:

180+ mJ/cm² @ 600+ mW/cm²

When 2 lamps are used for curing a color, the first lamp should provide the required level of output. Additional cure may be required when printing over a dark or colored background. 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, lower block resistance, and higher residual odor.

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.

PROCESSING

4000 Series Backlit Halftones have been formulated to provide a mar resistant ink surface after UV curing. Exposure to additional high heat levels increases the level of gouging or scratch resistance.

Stacking: Although surface hardness of the cured ink film has been optimized for handling, the printer must assume responsibility for pre-testing and qualifying the parameters for stacking prints prior to each production run.

Careful evaluation when prints are stacked ink-to-substrate and ink-to-ink, at high temperatures, and stacked to higher levels. Block resistance is also influenced by the degree of cure, the weight or gauge of the substrates and/or the heat and humidity of the printing environment.

Cutting: suitable for router cutting, guillotine cutting, and laser cutting.

Heat Bending: suitable for heat bending at a 180° angle, inward and outward. Areas exposed to high heat may exhibit a harder ink surface.

Thermoforming / Drape Forming: suitable for 3-4" (8-10 cm) thermoforming draw and drape forming.

Use with pre-mask: not suitable for most applications. The printer is responsible to pre-test prior to full production printing.

Use with adhesives: not recommended for use with most adhesives. Some non-aggressive screen printable adhesives have shown to be compatible in limited applications. The printer is responsible to pre-test prior to full production printing.

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INK HANDLING	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. 4000 Series Backlit Halftones are a one-part, 100% solids UV-curable screen printing inks which do not contain N-vinyl-2-pyrrolidone (trade name V-Pyrol®).

PRODUCT OFFERING

PACKAGING	Special order items: the item listed below is non-inventoried which require minimum quantities and may include additional lead time. All items listed below are available in gallon containers.

Item Number	Item Description		Item Number	Item Description
40111	Halftone Backlit Cyan		40113	Halftone Backlit Yellow
40112	Halftone Backlit Magenta		40114	Halftone Backlit Black

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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