

TECHNICAL DATA SHEET

Product Features & Substrates

Features

DNSC's x-nano™ MICRblack™ HD3X-1G is an ideal MICR (magnetic ink character recognition) ink for printing bank compliant, long-lasting documents for archival, security applications, payments and premium quality prints. x-nano™ MICRblack™ HD3X-1G pigment ink, contains high-density magnetic nanoparticles (50nm) for magnetic content scanning; extreme light and waterfastness, rich optical density and ever-lasting document integrity.

Product name:	MICRblack™ HD3X-1G
Ink vehicle:	Aqueous
Ink type:	MICR
Color:	Black
Optical Density (600x600dpi)*:	K=0.90
Average particle diameter (nm):	44-65
Viscosity (cPs):	7.0 – 12.0
Surface tension (dynes/cm):	32 – 42
pH:	6.9 – 7.3
Specific gravity:	1.40 – 1.60
MICR Signal*:	100-130%
Shelf life:	> 24 months

Ideal Product Use Conditions**

Media compatibility: porous, non-porous, coated, glossy and offset.

Print Head compatibility: Thermal & Piezo inkjet printers.

Ink Handling

Proper use and handling will provide optimum print quality and print life. It is recommended that all personnel handling the ink wear gloves and eye protection. Clean up any ink spill immediately. Should ink come in contact with skin, wipe ink off the area with a clean, dry cloth rag and wash affected area with soap and water.

Shelf Life

Optimal temperature range for storage is 41°F - 95°F (5°C - 35°C). Keep out of reach of children. This product has a shelf life of 24 months from the date of manufacture when stored under preferred conditions. Exposing the ink to temperatures higher or lower than preferred may have an adverse effect on performance and/or shelf life. The ink needs to acclimatize to room temperature before calibration and printing.



K

K-SERIES:

xnMB-3

MICRblack™ HD3X-1G

PREMIUM K-Channel MICR Inkjet Ink

x-nano™ MICRblack™ HD3X-1G pigment ink, containing magnetic nanoparticles (50nm) for magnetic content scanning (100-130% signal strength*). Indefinitely stable (no agitation required), water-based, eco-friendly (Ames negative) and compatible with a variety of porous and non-porous paper and non non-paper substrates.

x-nano™ MICRblack™ HD3X-1G ink replaces standard black ink and achieves worldwide magnetic (MICR) signal requirements for global use. x-nano™ MICRblack™ HD3X-1G ink is designed to offer reliable and quality results every time for industries like general purpose publishing, banking, finance and security.

* Actual optical density and signal strength is dependent on drop size, resolution, substrate surface and other ink formulation parameters.

** Results may vary according to your print conditions. To the best of our knowledge, this data sheet is accurate; however, DNSC assumes no liability for the accuracy of this information. The final determination of the suitability for a particular use is the sole responsibility of the user.



DNSC
diversified nano
solutions corp

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x-nano™ MICR Black HD3X-1G

Ink Performance

DNSC's x-nano™ MICRblack™ HD3X-1G ink ensures consistent results for a wide variety of printing needs. It is specially formulated ink that gives you ultra crisp, sharp prints resistant to smudging and fading. x-nano™ MICRblack™ HD3X-1G ink is fraud proof and tamper resistant, compatible with magnetic readers used at retail stores and banks for printing 100% bank compliant checks. x-nano™ MICRblack™ HD3X-1G ink is the ultimate solution for many industries in the financial and security markets.

Applications

Magnetic Ink Character Recognition (MICR) Printing Worldwide

Security ID Card Printing

Mailing/Barcode Labels

Invisible Anti-Counterfeit "Marking"

Ink Volume

Custom packaging available upon request.

Operating Conditions

Temperature: 66 ° F – 80 ° F [19 ° C – 27 ° C]

Humidity - Optimum: 40% - 60% (non-condensing)

Operational: 30% - 70% (non-condensing)

DNSC's Warranty

DNSC guarantees the quality of ink it fills into qualified ink containers (INKVERSE™, TIJ 2.5 Cartridges, Other DNSC certified containers & bags). However, it cannot guarantee the printed results since DNSC has no control over customers' operating and printing procedures. While all information on use of this product is provided in good faith, the customer bears sole responsibility in its end use.

Liabilities associated with using this product are limited to the purchase value of the product.

Validated Equipment for digital inkjet technology

Canon, Screen, HP, Ricoh, Infoprint, Epson, Kodak, Panasonic, Kyocera, Konika-Minolta, FujiFilm-Dimatix, Impika, Xerox, Domino, Amica Systems, Pitney Bowes, KBA, RRD, MCS, HP SPS TIJ 2.5/4.0 and many more.

Do you have questions about this product? [Ask question](#)

K-Series Products:

xnMB-1 MICRblack™ - MICR ink
"HD2a" / 90-110%*.

xnMB-2 MICRblack™ - MICR ink
"HD2b-156" / 100-130%*.

xnMB-3 MICRblack™ - MICR ink
"HD3X-1G" / 100-130%*.

xnMB-4 MICRblack™ - MICR ink
"0101S" / 80-100%*.

xnMB-5 MICRblack™ - MICR ink
"K5" / 110-140%*.

Order MICRblack™ products:

[Request quote](#)

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