

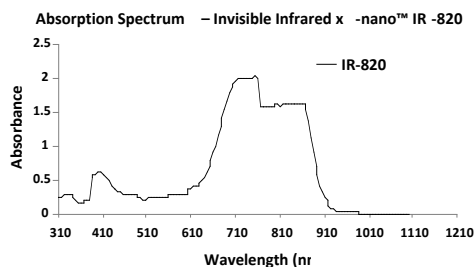
TECHNICAL DATA SHEET

Product Features & Substrates

Features

DNSC's x-nano™ Invisible Infrared inks are ideal for “stealth” tracking (1-D and 2-D barcodes), invisible marking, security applications, anti-counterfeiting, product security and brand protection, art and design. Invisible x-nano™ IR-820 offers high absorbance intensity in the near infrared (NIR) light range with a maximum wavelength of absorbance at 820nm. Invisible x-nano™ IR-820 ink is transparent at visible wavelengths, but appears dark or black under an infrared camera lens.

Ink vehicle:	Aqueous
Ink type:	Dye
Detection (type, λ):	IR, 700-900nm
Color (absorption, λ_{\max}):	Black, 820nm



Lightfastness (woolscale):	2-3
Waterfastness:	Good
Smudge proof:	Yes
Shelf life:	<2 years

Ideal Product Use Conditions*

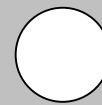
Media compatibility: porous, non-porous, coated, glossy and offset.

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.

Storage/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 <2 years 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.



IR

I-SERIES: x-nano™ IR-820

PREMIUM Invisible Inkjet Ink

DNSC's x-nano™ Invisible Infrared Ink is specifically designed to support many security and non-security applications. These inks can be printed, air brushed, or hand-drawn on a variety of media without interfering with other content, and enables authentication of objects and items using IR (infrared) light. I-Series inks provide a platform for endless personal, industrial and security applications and are suitable for digital inkjets.

Order Invisible IR ink products

[Request quote](#)

*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.

Ink Performance

DNSC's x-nano™ Invisible Infrared ink is ideal for creating security features to prevent fraud and counterfeiting of materials and goods. x-nano™ IR-820 ink has a unique absorbing feature in the light wavelength range of 700-900nm to meet the increasingly diversified demands in security industries. Infrared ink is water-based, eco-friendly (Ames negative) and compatible with a variety of porous and non-porous paper and non-paper (textiles/skin) substrates.

Applications

Secret communication and information delivery, high speed tracking and authentication using 1- and 2- dimensional invisible barcodes, invisible watermarks on letter head, envelopes, business cards and checks, invisible content on passports, ID and currency, banknotes and other official stamps, branded goods, pharmaceuticals, invisible tattoos, invisible signatures on paintings and certificates and much more.

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). 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 by:

Oce, Canon, HP, Ricoh, Kodak, Panasonic, Kyocera, Konika-Minolta, Fuji-Dimatix, Impika, Xerox, Domino, Epson, KBA, RRD, MCS, HP SPS TIJ 2.5/4.0 and many more.

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

Similar Products

x-nano™ IR-783

x-nano™ IR-1040

Other Products

x-nano™ UV Blue 460

x-nano™ UV Green 545

x-nano™ UV Yellow-Green 560

x-nano™ UV Red 615

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