

Suggested Uses:

The 88 Matte Series inks are recommended for use on polyethylene (container & flat sheet), some polypropylene-flat sheet, soft vinyl's (French calf, suedene, patent, etc.), most decal material, PETE, PETG, many polyesters (print-treated and top-coated), PVC, polycarbonate, paper and card stocks, styrene, some coated metals and most acrylics and book cloths. **It is the responsibility of the end user to pretest all substrates with Norcote® products prior to use in production.**

Product Features

- Matte Finish
- Chemical Resistant
- Excellent Intercoat Adhesion
- Multi-purpose Product
- Opaque
- Quick Curing
- Resistant to Blocking

Printing Recommendations:

All inks should be thoroughly mixed prior to use. Inks are supplied at print ready viscosity for most applications. If adjustment is needed the 88-070 Thinner or 88-049 Overprint Clear can be used to thin the ink. **Do not microwave this product.**

Mesh:

A mesh count of 305-355 threads per linear inch (120-140 cm²) low elongation, monofilament polyester is suggested. Tension should range from 18-25 N/cm² on a rigid frame.

Stencil:

All direct emulsions and thin capillary films (15-25µ before application) compatible with UV inks are acceptable.

Squeegee:

A sharp 80 shore durometer polyurethane squeegee is preferred. Inks can be printed with durometers ranging from 60-90 as well as dual durometer squeegees.

Curing Parameters:

Norcote® 88 Series inks cure only when exposed to UV light of the proper wavelength. Curing speeds depend on several factors including ink film thickness and the energy level of the lamps. Ink should be cured immediately after printing.



Curing Equipment:

88 Series inks are fast curing and work well with one 300 watts/in (120 watts/cm) or two 200 watt/in (80 watts/cm) focused medium pressure mercury vapor lamps with millijoules (mJ) and (mW) of:
200 mJ/cm² @ 600 + mW/ cm² minimum for most colors and clears.
300 mJ/cm² @ 600 + mW/ cm² minimum for opaque colors (blacks, whites, tans, grays, metallics, etc.). The 88 Series inks will cure up to 100 feet per minute (30 meters per minute) with most focused UV curing units.

Screen Cleaning:

Most conventional solvent cleaners work well. Norcote's® NSW-824 Screen Wash is an environmentally friendly cleaner proven effective with UV and other inks. It is available in 1 and 5 gallon containers or 55 gallon drums. Refer to the NSW-824 technical data sheet for additional information. Alcohol based solutions must be avoided as they break down the emulsion.

Coverage:

Approximately 2,500 square feet per gallon (230 square meters per gallon) depending on printing variables affecting ink film thickness and coverage.

Mixing:

All Norcote® 88 Series colors are intermixable. The 88 Series matte inks may be combined with the 80 Series gloss inks to achieve a wide range of gloss levels.

Precautions:

Avoid direct contact of ink with skin and clothing. If contact occurs, wash affected area with warm soapy water and dry thoroughly. If eye contact occurs, irrigate the area with water for 15 minutes and consult a physician. For more specific information, refer to the relevant Material Safety Data Sheet.

Adhesion:

The 88 Series is a nonvisual post-curing system. Although further cross-linking occurs up to 24 hours later, the 88 Series inks should pass a crosshatch tape test, (ASTM #D3359-97), using 3-M 600 tape after exiting the curing unit and cooling to room temperature. Maximum chemical and abrasion resistance and adhesion will be attained after 24 hours. 800 Initiator may improve adhesion and surface durability.

Intercoat Adhesion:

88 Series inks intercoat adhesion is excellent. Although loss of intercoat adhesion is difficult, it should be monitored throughout the production run especially when printing 6 or more passes.

Weatherability:

The 88 Series inks are not weatherable.

Scoring and Folding:

The 88 Series inks provide fair results under controlled scoring and folding conditions. To obtain acceptable results, the 88 Series inks must pass a cross-hatch tape test. Highly pigmented inks and inks with special effects pigments may not score and fold well. For further details contact the Technical Service Department.

Chemical Resistance:

The 88 Series inks have been exposed to a variety of chemicals to determine chemical resistance. The 88 Series inks proved to be resistant to most common chemicals when properly cured.

Metallic Colors:

Most metallic pigments work well with the 88-049 Overprint Clear. Ability to cure a suspension is related to pigment load and UV exposure. Select mesh with openings large enough to transfer the metallic pigments of choice; generally a mesh count of 305 threads per inch (120/cm) or lower is required. Metallic pigments will reduce the shelf life of 88 Series ink mixtures. RECOMMENDATION: Mix only enough metallic ink for one day.

Additives:

Check the Norcote Additives list for the products compatible with this ink series. The list is available on our website at www.norcote.com or call us at 800-488-9180 to receive a copy.

Color Range:

Specific colors can be matched at Norcote® against prints, wet ink or PANTONE® numbers.

Standard Colors:

Matte Mixing White	002
Matte Mixing Black	005
Matte Brown	007
Matte Radiant Yellow	012 •
Matte Medium Yellow	017
Matte Permanent Orange	019 •
Matte Red	022
Matte Rhodamine Red	023
Matte Rose	024
Matte Magenta	026
Matte Emerald Green	030
Matte Spruce Green	031
Matte Permanent Blue	034
Matte Violet	035
Matte Reflex Blue	037
Matte Peacock Blue	038
Matte Clear	049
Matte Lightfast Yellow	2313
Matte Lightfast Orange	2872



• **May not be suitable for lightfast applications and is not recommended for prolonged exposure to direct sunlight.**

Process Colors:

Halftone Base	060
Halftone Process Cyan	080
Halftone Process Magenta	081
Halftone Process Yellow	082
Halftone Process Black	083

Fluorescent Colors/JZB's:

Aurora Pink (Blue shade)	11 B
Aurora Pink (Yellow shade)	11 Y
Rocket Red	13
Fire Orange	14
Blaze Orange	15
Arc Yellow	16
Saturn Yellow	17
Signal Green	18
Horizon Blue	801
Corona Magenta	21

Metallics:

Gold Paste	040	• (See Note)
Silver Paste	042	
Red Gold Paste	044	
Copper Paste	046	
Rich Gold Ink	240	
Silver Ink	242	

• 040 paste should be stored between 18C-35C to avoid solidification. If this occurs, reliquify the paste by placing it in an area with temperatures of 25C-35C.



Storage & Available Warranties

All UV 88 Series inks should be stored in tightly closed, black polyethylene containers in an area with the temperature not to exceed 90° F (32.2° C). Avoid direct sunlight and indirect white light. Excess ink from print runs should be stored in separate containers to avoid contamination and is not covered under any warranty. When stored under these conditions, Norcote warrants the Products shall be free from defects in material and manufacture for a period of one (1) year from the date of sale for the 88 Series standard inks, with no additives, and for a period of one (1) month from the date of sale for any custom color containing Day Glo® JZB or T-Powder. **Norcote will not warrant any custom colors containing metallic pastes or any inks intermixed with competitor products.** Any warranties provided will be limited to the price paid for the actual products used which give rise to the warranty claim.

This Technical Bulletin is intended to be used for informational purposes only, and is in no way intended to create any warranties or other obligations on behalf of Norcote. All warranties, terms and/or conditions for a particular product will be specified on the applicable invoice and are only valid upon the creation of a legally-binding contract.

Testing

Due to the inability of Norcote to anticipate or control the conditions under which the Products and information relating thereto will be used and/or stored, Norcote cannot guarantee the results obtained from using the Products. Any Suggested Uses are merely representative, and because the final product will depend on a number of specific factors, the end user should pretest all substrates with the Products prior to use in production.

*PVC Plastics:

Decoration can aggravate embrittlement properties of PVC plastics which can lead to cracking and failure of the plastic. It is strongly recommended that the end user contact the polymer manufacturer to obtain information on the suitability for decorating with a UV ink as well as recommendations for molding / processing to reduce this potential. As every situation can not be tested for in a laboratory environment, it is the responsibility of the end user to determine the suitability of the products chosen for an end application.

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