3M™ Screen Printing UV Ink Series 9800
For line colour and four colour screen printing

Product Bulletin

Product Description

3M™ Screen Printing UV Ink Series 9800 is a high performance, ultraviolet-curable ink system used to print multicolour graphics on a wide variety of 3M graphic films. The ink series includes transparent, opaque and four-colour process inks for use on indoor or outdoor graphics.

When protected with selected 3M clears, this ink produces a tough, flexible, graphic coating that is weather, chemical and abrasion-resistant. It also has superior performance on difficult application surfaces, including corrugated and riveted surfaces.

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Safety

When handling any chemical products, follow the container labels and the Material Data Safety Sheets for health, safety and environmental information.

Please dispose of cleaning cloths and paper towelin a responsible manner. Since regulations vary, consult applicable regulations or authorities before disposal. When using any equipment, always follow the manufacturers' instructions for safe operation.

Refer also to the Product Bulletins for each product in your graphic construction for specific details that may influence the information in this Bulletin.

Ventilation

Always provide adequate local or general ventilation to remove emissions. Failure to provide adequate ventilation can result in operator exposure.

Air Quality Regulations

Country Volatile Organic Compound (VOC) regulations may prohibit the use of certain cleaning chemicals with VOC's in graphic arts coatings and printing operations. Check with your country environmental authorities to determine whether use of this solution may be restricted or prohibited.
Compatible Products for 3M™ MCS™ Warranted Graphics

**Ink series 9800** is compatible with most of 3M’s Scotchcal™, Controltac™, and Scocliete™ branded graphic films that are designed for screen printing. Refer to the Product Bulletin for the base film being used for ink compatibility, intended applications, construction options and warranties.

**Clears**
- 3M™ Screen Printing Gloss UV Clear 9800CL
- 3M™ Screen Printing Gloss UV Clear 9740i
- 3M™ Screen Printing Low Gloss UV Clear 9730UV

**Application Tapes**
- 3M™ Premasking Tape SCPM-44X
- 3M™ Prespacing Tape SCPS-2
- 3M™ Prespacing Tape SCPS-55 (use on graphic films with 3M’s Comply™ adhesive)

**Storage**
- Shelf life: Use by expiration date shown on the product packaging. A Use By Date is on the ink container product label, as well as the outer shipping carton. Do not use ink that show signs of gelling.
- In case of adding metallic flakes, the pot life of mixed, metallic ink is 1 to 2 days. Pearlescent flakes do not cause the ink to gel, however, they will settle.
- Storage conditions: +15°C to +32°C, out of sunlight; away from mercury vapor lamps, quartz-halogen lamps, or arc lamps; in original container or in other sealed, black polyethylene containers. Do not store the inks in glass or metal containers.

**Durability**
For detailed warranty information, refer to the Product Bulletin of each base film used in your graphic.

Depending on the graphic construction and end use:
- Ink series 9800 with gloss clear 9800CL may be warranted for up to 6 years.
- Ink series 9800 with gloss clear 9740i may be warranted for up to 8 years.
- Ink series 9800 with low gloss clear 9730UV may be warranted for up to 3 years.

Processing conditions can affect the durability of the ink. Carefully follow all instructions of the instruction bulletins 3.20 and 3.21.

In addition, 3M provides a guarantee/warranty on a finished applied graphic within the framework of 3M Performance Guarantee and 3M™ MCS™ warranty programs.

**Visit** [www.3Mgraphics.com](http://www.3Mgraphics.com) **for getting more details about 3M’s comprehensive graphic solutions.**

**Limitations of End Uses**
3M specifically does not recommend or warrant the following uses, but please contact us to discuss your needs to recommend other products.
- inks used for markings on articulated trucks carrying concrete
- inks used for markings on vehicles frequently washed with concentrated strong acids
- graphics made of multiple layers of ink and clear that must be stretched during installation

**Important Notice**
- 3M Commercial Solutions products are not tested against automotive manufacturer specifications!
When to use an overprint clear or overlaminate

See instruction bulletin GPO ‘graphic protection options’ for further information about selection and use of protective overlaminates and printable clears.

> Product Bulletin Graphic Protection Options <

Shipping finished graphics

Flat, or rolled film side out on 130 mm (5 inch) or larger core. These methods help to prevent the liner from wrinkling or application tape, if used, from popping off.

Formulations and processing conditions can affect ink durability. Refer to the 3M Product and Instruction Bulletins for your ink for limitations and proper usage. Graphic protection can improve the appearance, performance and durability of your graphic.

A clear coat also prevents chalking on unprinted films. Use equipment designed to handle high viscosity materials and make sure the coating is evenly applied to the specifications given in the clear’s Instruction Bulletin.

Abrasion damage and loss of gloss are not covered by any 3M warranty. This is considered normal wear and tear.

There are unique health and safety considerations that must be understood prior to vacuum forming faces using translucent films.

Refer to Instruction Bulletin 5.16 ‘Thermoforming’ for special recommendations, limitations and processing requirements when forming with applied films.

> Instruction Bulletin 5.16 ‘Thermoforming’ <

Forming of applied film on sheets should not exceed 50% elongation.

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline).

Refer to Instruction Bulletin 6.5 ‘Storage, Handling, Maintenance and Removal of Films and Sheetings’, for general maintenance and cleaning information.

> Instruction Bulletin 6.5 ‘Storage, Handling, Maintenance and Removal of Films and Sheetings’ <

The application of colored or printed film onto glass can lead to glass breakage through thermal expansion of the glass. The local conditions must be examined for the danger of glass break by uneven heat absorption through sun exposure. Type of glass (insulation glass, float glass, LSG, toughened safety glass, semi-tempered glass, etc.), glass dimension, joint condition, flexibility of the sealant, quality of the edge finishing, geographical orientation and partial shadow during sun exposure are the determining factors. Light color designs and application on the outside of the window are to be preferred. A free non-applied framework of 4 mm around the entire window front can help to dissipate the absorbed warmth. According to common knowledge a thermal crack can occur at temperature differences of approx. 130°C (toughened safety glass), approx. 40°C (float glass) or approx. 110°C (semi-tempered glass). Coldest place is usually under the framework in the embedded joined window part, the warmest place is typically on the darkest place in the format. Because of the many above mentioned factors, glass breakage cannot be fully predicted, therefore 3M does not accept liability for glass breakage when using this film for window graphics.
Remarks
This bulletin provides technical information only.

Important notice
All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

Additional Information
Visit the web site of your local subsidiary at www.3Mgraphics.com for getting:
- details about 3M™ MCS™ Warranty and 3M™ Performance Guarantee
- additional instruction bulletins
- a complete product overview about materials 3M is offering

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