



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.

Product Line	Screen Printing	Opaque Colours	Transparent Colours
		9802 Opaque Black	9825 Blue Shade Red
		9803 Mixing Black	9828 Yellow Shade Red
		9806 Mixing White	9831 Orange
		9808 Opaque White	9840 Medium Yellow
		9812 Magenta	9848 Yellow
		9813 Red Violet	9864 Blue Shade Green
		9826 Brick Red	9882 Red Shade Blue
		9827 Red	
		9830 Orange	Process Colours
		9837 Red Shade Yellow	9805P Black
		9843 Medium Yellow	9815P Magenta
		9849 Lemon Yellow	9845P Yellow Shade Red
		9861 Light Green	9875P Cyan
		9879 Green Shade Blue	
		9891 Blue Violet	
		Other Products	Clears
		9801 Thinner	9800CL Gloss
		9810 Toner	
		9800B Halftone Base	
		9800HBB Heavy Body Halftone Base	

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 toweling in 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**

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.
	Graphic Films	Ink series 9800 is compatible with most of 3M's Scotchcal™, Controltac™, and Scochlite™ 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)

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.

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

Visit 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!

Graphics Manufacturing

Graphic protection can improve the appearance, performance and durability of printed graphics. Any printed graphic exposed to abrasive conditions (including vehicles), harsh cleaners or chemicals must include graphic protection in order to be warranted.

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.

Converting Information Screen Printing

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 and Loss of Gloss

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

Converting Information Thermoforming

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'<](#)

Elongation limit

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

Application

See product bulletin ATR 'application tape recommendations' for information about selection and use of suitable application tapes for this product, please.

[> Product Bulletin Application Tape Recommendations <](#)

Refer to Instruction Bulletin 5.5 'General Procedures for Interior and Exterior Dry Application', for general application information.

[> Instruction Bulletin 5.5 'General Procedures for Interior and Exterior Dry Application' <](#)

Maintenance and Cleaning

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'<](#)

Important Safety Remark

Application to glass

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



Commercial Solutions

Hermeslaan 7

1831 Diegem, Belgium

Responsible for this technical bulletin

3M Deutschland GmbH | Safety & Graphics Laboratory

Carl-Schurz-Str. 1 | 41453 Neuss, Germany

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