

NOTE

This product bulletin replaces Product Bulletin 880I dated April 2011 and Product Bulletin 880N dated January 2013.

Product Description

3M™ Process Color Series 880I (“Series 880I”) and 3M™ Process Color Series 880N (“Series 880N”) are designed as part of the matched component system for application by screen processing. Application to other grades or types of sheetings or surfaces is not recommended.

Compatible Products

Refer to the appropriate product bulletin for details on the following products compatible with Series 880I and 880N inks.

- 3M™ Engineer Grade Prismatic Reflective Sheeting Series 3430
- 3M™ Diamond Grade™ Fluorescent Workzone Sheeting Series 3924S
- 3M™ High Intensity Prismatic Reflective Sheeting Series 3930
- 3M™ Diamond Grade™ DG³ Reflective Sheeting Series 4000
- 3M™ Advanced Flexible Engineer Grade Reflective Sheeting Series 7300

Colors

Series 880I and Series 880N process colors are intended for use in the production of traffic control signs. Signs made using these materials will have a similar appearance when viewed from a vehicle in daylight or at night.

The following series process colors are applied by screen processing:

Table A. Process Colors

Series 880I		Series 880N	
880I v2 Toner	887I v2 Brown	880N v2 Toner	887N v2 Brown
882I v2 Red	888I v2 Green	882N v2 Red	888N v2 Green
883I v2 Blue	893I v2 Blue-Violet	883N v2 Blue	
884I v2 Yellow	894I v2 Lemon Yellow	884N v2 Yellow	
885I v2 Black (Opaque)	895I v2 Magenta	885N v2 Black (Opaque)	
886I v2 Orange		886N v2 Orange	

Additionally, 3M™ Flow Additive is a silicone polymer solution intended to be mixed with Series 880I and 880N inks to help reduce print quality issues.

Process colors are typically screen press ready directly out of the can. However 3M™ Thinner 891I and 3M™ 811N Thinner are available and should be used sparingly. See [3M Information Folder 1.8](#) for details.

Specifications

Sheeting imaged with Series 880I or Series 880N inks conforms to the current performance requirements of ASTM D4956 for their respective sheeting types. Screen printed traffic color (red, blue, green, orange, and brown) areas on white sheeting shall not be less than 70% of the value of the coefficient of retroreflection (RA) as defined in ASTM D4956, for the respective sheeting type and corresponding color. Refer to the screen print ink specific 3M™ MCS™ Warranty for Traffic matrices for further details regarding retroreflectivity minimums over the warranty period.

NOTE

884i v2 Yellow and 884N v2 Yellow, when printed on 3M™ Advanced Flexible Engineer Grade Reflective Sheeting Series 7300, do not meet the requirements of ASTM D4956.

System of Matched Components

See the [3M™ Sign Warranty Bulletin](#) for a complete list of matched components.

Screen Printing and Drying

For detailed instructions on screen printing and drying for Series 880I and Series 880N inks, see [3M Information Folder 1.8](#).

Slipsheeting and Packaging

Screen processed signs must be protected with slipsheeting as recommended in [3M Information Folder 1.11](#). Place the glossy side of the slipsheeting against the sign face and pad the face with closed cell packaging foam. Double faced signs must have the glossy side of slipsheeting placed against both sign faces.

Package for shipment in accordance with commercially accepted standards to prevent movement and store sign packages indoors on edge.

Panels and finished signs must remain dry during shipment and storage. If packaged signs become wet, unpack them immediately and allow the signs to dry. See [3M Information Folder 1.11](#) for instructions on packing finished signs for storage and shipment.

Shelf Life and Storage

Shelf Life

Series 880I and Series 880N inks have a shelf life of 2.5 years from the date of manufacture for unopened product.

Storage Conditions

- 60°F to 80°F (15.6°C to 26.7°C)
- Original container
- Properly sealed when not actively removing ink from the container

3M Related Literature

Always use the most current version of the applicable product bulletin, information folder, and/or other product information. These are available at www.mmm.com/roadsafety.

- [3M Information Folder 1.4](#) Instructions for Operation of the Interstate Squeeze Roll Applicator
- [3M Information Folder 1.5](#) Hand Application Instructions for Reflective Sheeting and Scotchcal™ Film with IPSA
- [3M Information Folder 1.7](#) Substrates and Preparations for Retroreflective Sign Sheeting Applications
- [3M Information Folder 1.8](#) Process Colors Series 880 and 900 Instructions for Use
- [3M Information Folder 1.11](#) 3M™ Reflective Sheeting Sign Maintenance Management
- [3M Product Bulletin 3430](#) 3M™ Engineer Grade Prismatic Reflective Sheeting Series 3430
- [3M Product Bulletin 3924S](#) 3M™ Fluorescent Orange Prismatic Work Zone Sheeting Series 3924S
- [3M Product Bulletin 3930](#) 3M™ High Intensity Prismatic Reflective Sheeting Series 3930
- [3M Product Bulletin 7300](#) 3M™ Advanced Flexible Engineer Grade Reflective Sheeting Series 7300
- [3M Product Bulletin 4000](#) 3M™ Diamond Grade™ DF3 Reflective Sheeting Series 4000
- [3M Sign Warranty Bulletin](#)
- [3M™ MCS™ Warranty for Traffic Matrix for Screen Printed Signs](#)

ASTM Test Methods are available from ASTM International, West Conshohocken, PA.

Health and Safety

Chemicals

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety, and environmental information.

[Follow this link to obtain SDS sheets for 3M products.](#)

[Follow this link to obtain information about substances of very high concern \(SVHC\) for EU products.](#)

Tools and Equipment Usage

When using any equipment, always follow the manufacturer's instructions for safe operation.

Warranty Information

3M Standard Warranty

The ink is warranted (“**3M Standard Warranty**”) to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in this product bulletin. If the ink is proven not to have met the 3M Standard Warranty on its shipment date, then a buyer’s exclusive remedy, and 3M’s sole obligation, at 3M’s option, will be refund or replacement of the ink.

3M™ MCS™ Warranty and MCS Warranty for Traffic

For warranty on screen-printed sheeting, refer to the [3M™ MCS™ Warranty Bulletin](#).

Toned, mixed, blended, or otherwise altered Series 880I and Series 880N inks and inks used in applications that are in not vertical or near-vertical positions are NOT warranted.

Technical Information

Technical information, guidance, and other statements provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license to any intellectual property rights is granted or implied with respect to this technical information.

Product Selection and Use

Many factors beyond 3M’s control and uniquely within user’s knowledge and control can affect the use and performance of a 3M product in a particular application. Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer’s application, including conducting a workplace hazard assessment, reviewing all applicable regulations and standards, and reviewing the product label and use instructions. Failure to properly evaluate, select, and use a 3M product in accordance with instructions or to meet all applicable safety regulations may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer

Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M’s option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability

Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Additional Limitations

See the [3M Sign Warranty Bulletin](#) for terms, additional limitations of your warranty, if any, and limitations of liability.