



# High Intensity Flexible Work Zone Sheeting

## Series 3810I and 314/316-L, R

For use on Traffic Control Devices used in Work Zones

Product Bulletin 3810I

May 2006

Replaces PB 3810I dated July 2003

### Description


3M™ High Intensity Flexible Work Zone Sheeting Series 3810I is intended for reflectorizing traffic control devices such as reboundable polyethylene drums, tubes, posts and rigid substrates, such as wood and metal. (This should not be used on PVC traffic cones.) The sheetings in this series possess high impact resistance and high nighttime reflectivity over a wide range of entrance angles. Also, the sheetings display the globally recognized International Worker Symbol  in a repeat pattern to identify them as material specifically designed for use in traffic control devices. This symbol helps manufacturers to select the proper sheeting for the intended use, and permits visual verification of proper use in the work zone by project inspectors. Series 3810I sheeting consists of flexible impact resistant, encapsulated lens reflective sheeting pre-coated with an aggressive pressure sensitive adhesive. The following colors are available:

Table 1

Product No.	Color
3810I	White
3811I	Yellow
3814I	Orange

Table 2

**Barricade Sheeting Configuration**

6" left stripe	316-L
6" right stripe	316-R
4" left stripe	314-L
4" right stripe	314-R

### Recommended Substrates & Application Procedure

Series 3810I sheeting is designed for manual or motorized applications to clean polyethylene-based work zone devices such as drums, tubes, and posts or rigid substrates such as wood and metal.

For best adhesion, the polyethylene substrate should be flame-treated before sheeting application. For rigid substrates please follow Information Folder 1.7 regarding sign base preparation. Application of series 3810I sheeting to plasticized polyvinyl chloride (PVC) devices is not recommended.

The application temperature (and substrate temperature) should exceed 60°F and the sheeting should be applied with firm pressure using a plastic squeegee or rubber roller.

**Note:** Care must be exercised to avoid stretching material when aligning during application. This sheeting has sufficient elongation to permit its flexing on reboundable plastic devices when impacted. However, if it is stretched during application, this feature will be significantly reduced and cracking may result.

### Installation

Nylon washers are recommended between the heads of all twist fasteners (such as screw heads, bolts, or nuts) and the sheeting to protect the sheeting from the twisting action of the bolt heads. 3M recommends the use of nylon washers or an approved anti-theft system.

### Process Colors

Series 3810I sheeting may be screen processed before or after mounting on a substrate using 3M™ Process Color Series 990 or Series 700.

Unprocessed sheeting and sheeting processed only with opaque black need not be clear coated. All other screen printed colors are to be clear coated with Series 4430R clear coat. For screen processing using PE 157 screen mesh using a fill pass,

## General Performance Considerations

The durability of 3M™ High Intensity Flexible Work Zone Sheeting Series 3810I will depend upon substrate selection and preparation, compliance with recommended application procedures, geographic area, exposure conditions, and maintenance.

Maximum durability of this sheeting is obtained when it is applied to polyethylene substrates following the recommendations contained in Information Folder 1.7 on Sign Base Surface Preparation.

Applications unprimed, excessively rough or non-weather-resistant surfaces, or exposure to severe or unusual conditions can shorten the durability of such applications.

The purchaser should select a suitable test for determining reflective sheeting performance on reboundable plastic substrates. Test should include plastic manufacturer's recommendation for impacting reboundable plastic traffic control devices.

## Health and Safety Information

Read all health hazard, precautionary, and first aid statements found in the Material Safety Data Sheet, and/or product label of chemicals prior to handling or use.

## Storage

High intensity grade reflective sheeting should be stored in a cool, dry area, preferably at 65-75°F (18-24°C) and 30-50% relative humidity, and should be applied within one year after purchase.

Rolls should be stored horizontally in the shipping carton. Partially used rolls should be returned to the shipping carton or suspended horizontally from a rod or pipe through the core. Unprocessed sheets should be stored flat. Finished signs should be stored on edge.

Screen processed signs must be protected with SCW 568 slipsheet paper. 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 the slipsheet against each face of the sign.

Unmounted screened faces must be stored flat and interleaved with the sheeting liner, glossy side against the sign face. Packages of finished sign faces must include sufficient nylon washers for mounting.

Avoid banding, crating, or stacking which puts signs or faces under pressure. Package for shipment in accordance with commercially accepted standards to prevent movement and chafing which may cause damage during handling. **Store sign packages indoors on edge.**

Do not allow panels or finished signs to become wet, unpack immediately and permit signs to dry. See Information Folder 1.11 for details of storage and packing.

## Literature Reference

### Sign Base Surface Preparation

Sign Base Surface Preparation	IF 1.7
Color Application Instructions	IF 1.8

### Maintenance Specifications

Storage, Maintenance & Removal Instructions	IF 1.11
---	---------

**FOR INFORMATION OR ASSISTANCE**

**CALL:**

**1-800-553-1380**

**IN CANADA CALL:**

**1-800-265-1840**

**Fax-on-Demand in the U.S. and Canada:**

**1-800-887-3238**

**Internet:**

**[www.3M.com/tss](http://www.3M.com/tss)**

3M assumes no responsibility for any injury, loss or damage arising out of the use of a product that is not of our manufacture. Where reference is made in literature to a commercially available product, made by another manufacturer, it shall be the user's responsibility to ascertain the precautionary measures for its use outlined by the manufacturer.

**Important Notice**

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and the following is made in lieu of all warranties, or conditions express or implied. Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct, special or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for his/her intended use, and user assumes all risk and liability whatsoever in connection therewith.

Statements or recommendations not contained herein shall have no force or effect unless in an agreement signed by officers of seller and manufacturer.

3M is a trademark of 3M. Used under license in Canada.



**Traffic Safety Systems Division**

3M Center, Building 0225-05-S-08  
St. Paul, MN 55144-1000  
1-800-553-1380  
[www.3M.com/tss](http://www.3M.com/tss)

**3M Canada Company**

P.O. Box 5757  
London, Ontario N6A 4T1  
1-800-3MHELPS

**3M México, S.A. de C.V.**

Av. Santa Fe No. 55  
Col. Santa Fe, Del. Alvaro Obregón  
México, D.F. 01210