



## Scotchlite™

### Reflective Material

#### 8473 Fluorescent lime-yellow Vest Trim

#### 8474 Fluorescent red-orange Vest Trim

Technical Data Sheet

April 2001

#### Description

3M™ Scotchlite™ Reflective Material - 8473 Fluorescent lime-yellow Vest Trim and 3M™ Scotchlite™ Reflective Material - 8474 Fluorescent red-orange Vest Trim consist of a durable polyester fluorescent backing with a laminated exposed, wide angle lens retroreflective silver stripe. The trim is available in two configurations:

1. 2" trim with 1" retroreflective stripe along one edge of the backing.
2. 4" trim with 2" retroreflective stripe centered on the backing.

#### Retroreflective Performance

The coefficient of retroreflection ( $R_A$ , in cd/lux/m<sup>2</sup>) is measured by methods traceable to either of the following retroreflective intensity testing procedures:

ASTM E809 and E810 ( $R_A$ )  
CIE 54: 1982 ( $R'$ )

The  $R_A$  values were measured at the listed specific entrance and observation angles for the reflective silver stripe.

Entrance Angle	Observation Angle	Typical $R_A$	Minimum $R_A$
-4.0°	0.2°	500	330
+5.0°	0.33°	330	250

#### Color

Product Number	Daytime Color	Reflected Color
8473	Fluorescent lime-yellow with silver stripe	White
8474	Fluorescent red-orange with silver stripe	White

#### Physical Performance

The reflective stripe of Scotchlite reflective material - 8473 fluorescent lime-yellow vest trim and Scotchlite reflective material - 8474 fluorescent red-orange vest trim is certified to ANSI/ISEA 107-1999 Level 2 retroreflective performance, and will meet or exceed the following specifications.

Retroreflectivity: . . . . . ANSI/ISEA 107-1999  
(Initial) Level 2 (Table 5)

Abrasion: . . . . . EN 530 Method 2  
( $R_A \geq 100$ )<sup>1</sup> 5000 cycles

Flexing: . . . . . ISO 7854 Method A  
( $R_A \geq 100$ )<sup>1</sup> 7500 cycles

Cold Fold: . . . . . ISO 4675 (-20°C)  
( $R_A \geq 100$ )<sup>1</sup>

Temperature Cycle: . . . 12 hours @ (50±2)°C  
( $R_A \geq 100$ )<sup>1</sup> 20 hours @ (-30±2)°C

Wash: . . . . . ISO 6330 Method 2A  
( $R_A \geq 100$ )<sup>1</sup> 10 cycles @ 60°C (140°F)

Wet Reflectivity: . . . . . ANSI/ISEA 107-1999 Annex A  
( $R_A \geq 100$ )<sup>1</sup> EN 471 Annex A

<sup>1</sup> Measured at 0.2° observation angle and 5.0° entrance angle.

## Performance

While use of 3M™ Scotchlite™ Reflective Material enhances visibility, no reflective material can guarantee absolute visibility, particularly in adverse weather conditions. Performance will vary depending upon actual use, exposure conditions and maintenance. Users should test reflective material to satisfy conformance to their own requirements.

## Application Instructions

Whenever two or more pieces of 3M™ Scotchlite™ Reflective Material - 8473 Fluorescent lime-yellow Vest Trim or 3M™ Scotchlite™ Reflective Material - 8474 Fluorescent red-orange Vest Trim are used together on a single surface or as a set, they should be matched to ensure uniform daytime color and nighttime or low-light reflectivity.

**Cutting:** Hand-cut or guillotined.

**Sewing:** Sew in place using a lockstitch with no more than 12 stitches per inch (2.54 cm), and not less than 5/64" (2 mm) from the edge of the trim. For best results, apply to light and medium weight fabrics.

## Care and Maintenance Instructions

**Important:** Test each application according to appropriate care instructions required for the finished product. Actual life of the trim depends on cleaning method and wear conditions. Vest trim is designed for limited home wash applications and can withstand up to 10 home wash and dry cycles with minimum performance loss. Care label recommendations:

**Wash:** Machine wash, 40°C (105°F)



**Bleach:** Do not bleach



**Dry:** Tumble dry low



**Iron:** Do not iron



**Dry-clean:** Do not dry-clean



## Product Availability

Scotchlite reflective material - 8473 fluorescent lime-yellow vest trim and Scotchlite reflective material - 8474 fluorescent red-orange vest trim are available in rolls with the following standard widths and roll lengths:

Trim Width	Reflective Strip Width	Roll Length
2"	1"	300 yd.
4"	2"	300 yd.

**Order and Product Information**

To order 3M™ Scotchlite™ Reflective Material Products, contact 3M Personal Safety Products Department Customer Service at 800-328-7098 Ext. 2.

**Storage and Shelf Life**

Store in a cool, dry area and use within two years after date of receipt. Store rolls in original shipping cartons. Return partially used rolls to the carton or suspend horizontally through the core.

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### **Important Notice to Purchaser:**

Except where prohibited by law, 3M makes the following limited warranty in place of any others, express or implied, including any implied warranties or conditions of MERCHANTABILITY or fitness for a particular purpose or any implied warranty or condition commonly found in the industry: 3M shall replace or, at its option, refund the price paid to 3M for any 3M™ Scotchlite™ Reflective Material or other 3M reflective products ("Products") which at the time of shipment to 3M's purchaser do not meet 3M's published Product specifications.

Because of the unlimited variety of potential applications for Products, BEFORE production use, the User (which may be a converter or end product manufacturer or others) must determine that the Products are suitable for the intended use and are compatible with other component materials. User is solely responsible for determining the proper amount and placement of Products. While reflective Products enhance visibility, no reflective product can ensure visibility or safety under all possible conditions. **3M shall not be liable in contract or in tort, for any indirect, incidental, special, or consequential damages (including, without limitation, lost profits, goodwill and business opportunity) relating to the use or inability to use the Products.**



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