

Release 5, May 2018

# 3M<sup>™</sup> Scotchlite<sup>™</sup> Reflective Material - 8471 Fluorescent Lime-yellow Vest Trim

#### Description

3M<sup>™</sup> Scotchlite<sup>™</sup> Reflective Material – 8471 Fluorescent Lime-yellow Vest Trim consists of a silver stripe of wide angle, exposed retroreflective lenses laminated to the center of a polyester fluorescent backing. When properly used, Scotchlite reflective material helps enhance the visibility of the wearer in nighttime or low-light conditions when illuminated by a light source, such as headlights, by returning the light back toward the original source and reaching the automobile driver's eye. The fluorescent color enhances daytime and dawn/dusk/low light visibility.

#### **Physical Performance**

The reflective stripe in 3M Scotchlite reflective material – 8471 fluorescent lime-yellow vest trim will meet or exceed the following performance specifications. It is important to note that use, wear, and environmental conditions will affect performance.

Physical Performance	Test Method	
Initial Average Reflectivity: 500	ASTM E809-08(2013)	
Minimum Reflectivity: 330	ASTM E809-08(2013)	
Abrasion: R <sub>A</sub> > 100	EN 530 Method 2, 5000 cycles	
Flexing: R <sub>A</sub> > 100	ISO 7854 Method A, 7500 cycles	
Cold Fold: R <sub>A</sub> > 100	ISO 4675, -20 °C (-4 °F)	
Temperature Cycle: R <sub>A</sub> > 100	12 hours @ 50 °C (122 °F); 20 hours @ -30 °C (-22 °F)	
Wet Reflectivity: R <sub>A</sub> ≥ 100	ANSI/ISEA 107-2015, Appendix A	

\*  $R_A$  was measured by 3M on new product or after the listed test method at a +5.0° entrance and 0.2° observation angles and is reported in cd/lux/m<sup>2</sup>. It was measured by methods based on any of the following retroreflective intensity testing procedures: ASTM E809-08(2013), ASTM E810-03(2013) (R¬A); CIE 54.2:2001 (R')

#### **Application Instructions**

Whenever two or more pieces of Scotchlite reflective material are used together on a single surface or as a set, they should be matched to ensure uniform daytime color and nighttime retroreflectivity.

#### Cutting

Die-cut, hand-cut or guillotine.

#### Sewing

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

### **Essential Information**

While the 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. Customers should be aware that 3M presents a Scotchlite reflective material product portfolio that offers a range of product attributes, and users should test the reflective material on their finished garments to satisfy conformance to their own requirements. All high visibility safety apparel items should be constructed in accordance with the appropriate standard.

3M Scotchlite reflective material – 8471 fluorescent lime-yellow vest trim contains an aluminum layer as part of its construction. Blemishing of this aluminum layer can occur if the front surface of the product has direct contact from hands during application and is then exposed to hot and humid conditions for a period of weeks (greater than 26.7° C (80° F) and greater than 70% relative humidity). These blemishes do not affect performance. Please see the <u>3M Technical Bulletin Care</u> <u>Guidelines to Reduce Staining of 3M™ Scotchlite™ Reflective Material</u> for more information.

3M recommends that all customers, in accordance with good manufacturing practices, establish an ongoing quality system which includes maintaining lot/roll identification, and implement continuous testing that reflects their garment needs throughout their production process.

3M Scotchlite reflective material – 8471 fluorescent lime-yellow vest trim is not certified for marine safety applications requiring IMO approval. 3M<sup>™</sup> Scotchlite<sup>™</sup> Reflective Materials – SOLAS Grade Products have this type of certificate.

3M Scotchlite reflective material – 8471 fluorescent lime-yellow vest trim is not certified to meet any occupational standard, including ANSI/ISEA 107 and CSA Z96. Trim should be used on non-regulatory garments only.

## Care Instructions



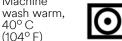
#### IMPORTANT NOTE

Machine

40° C (104° F)

Test each application according to appropriate care instructions required for the finished product. 3M™ Scotchlite™ Reflective Material – 8471 Fluorescent Lime-yellow Vest Trim was not designed for extended wash performance, and actual life depends upon cleaning method and wear conditions.













Do not dry clean

# Product Availability

Scotchlite reflective material - 8471 fluorescent lime-yellow vest trim is available in the following standard size:

3M™ Scotchlite™ Reflective Material		
Trim Width	<b>Reflective Stripe Width</b>	Standard Roll Length
38.1 mm (1.5 in.)	12.7 mm (0.5 in.)	- 300 m (328 yd)
50.8 mm (2 in.)	15.9 mm (0.62 in.)	

### Storage and Shelf Life

Store in a cool, dry area (4 to 32°C, (40 to 80°F); less than 70% relative humidity) and use within two years of date of receipt. Store rolls in original shipping cartons. Return partially used rolls to the carton or suspend horizontally through the core. Cut pieces should be stored flat. Ensure that the lot/roll identification remains with product rolls and pieces.

## Contact Us

For current technical literature and technical support, go to Scotchlite.com, or call Customer Service at 800-328-7098. To purchase, got to Scotchlite.com and click on Support for a list of our distributors.

# Important Notice

WARRANTY, LIMITED REMEDY AND DISCLAIMER: 3M warrants that 3M<sup>™</sup> Scotchlite<sup>™</sup> Reflective Material that is stored. maintained and used in accordance with 3M's written instructions will meet the applicable 3M product specifications. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. IF any Scotchlite reflective material does not conform to this warranty, then 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 where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract or strict liability.

PRODUCT USE: Because of the variety of factors that can affect the use and performance of Scotchlite reflective material, user is solely responsible for evaluating the product and determining whether it is fit for a particular purpose and suitable for user's method of application. User is solely responsible for determining the proper amount and placement of the product. While reflective products enhance visibility, no reflective product can ensure visibility or safety under all possible conditions. 3M may change the product, specification and availability of the product as improvements are made; therefore, user should contact 3M for latest information before specifying the product.

**Personal Safety Division** 

3M Center, Building 235-2F-06 St. Paul, MN 55144-1000 800-328-7098 Scotchlite.com 3M PSD products are occupational use only.

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