Scotchlite™
Reflective Material
8910 Silver Fabric

Technical Data Sheet *August 1999*

Description
3M™ Scotchlite™ Reflective Material - 8910 Silver Fabric is composed of wide angle, exposed retroreflective lenses bonded to a durable cloth backing (65% polyester, 35% cotton).

Retroreflective Performance
The coefficient of retroreflection (R_A, in cd/lux/m²) 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.

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
8910	Silver	White

Physical Performance
Scotchlite reflective material - 8910 silver fabric is certified to meet EN 471 Class 2 retroreflective performance and will meet or exceed the following ANSI/ISEA 107-1999 Level 2 performance tests:

Retroreflectivity: . . . . . .EN 471 Class 2
(Initial) (Table 5)
ANSI/ISEA 107-1999
Level 2 (Table 5)

Abrasion: . . . . . prEN 530 Method 2
($R_A \geq 100$) 5000 cycles

Flexing:. . . . . ISO 7854 Method A
($R_A \geq 100$) 7500 cycles

Cold Fold: . . . . . .ISO 4675 (-20°C)
($R_A \geq 100$)

Temperature Cycle: . . . . . 12 hours @ (50±5)°C
($R_A \geq 100$) 20 hours @ (-30±2)°C

Wash:. . . . . ISO 6330 Method 2A
($R_A \geq 100$) 50 cycles @ 60°C (140°F)

Dry-clean:. . . . . ISO 3175 Method 9.1
($R_A \geq 100$) 20 cycles

Wet Reflectivity: . . . . . EN 471 Annex A
($R_A \geq 100$)

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 - 8910 Silver Fabric 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: Die-cutting is recommended, although fabric can also be 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 reflective fabric. 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 Scotchlite reflective material - 8910 silver fabric depends on cleaning method and wear conditions. Care label recommendations:

Wash: Machine wash, 40°C (105°F)

Bleach: Only non-chlorine bleach when needed

Dry: Tumble dry low

Iron: Use cool iron, 110°C (230°F)

Dry-clean: Dry-clean, normal cycle

Product Availability

3M™ Scotchlite™ Reflective Material - 8910 Silver Fabric is available in rolls with the following standard widths and roll lengths:

Units	Width	Width Tolerance	Standard Roll Length
inches	< 6″	±1/32″	100 yd.
inches	6″ ≤ w < 36″ ≥ 36″	0″ to +1/8″ +1/8″ to +1/4″	100 yd. (> 12″ = 50 yd.)
mm	< 150 mm	±1 mm (std) ±.5 mm (special)	100 m
mm	150 mm ≤ w < 900 mm ≥ 900 mm	0 mm to +4 mm +3 mm to +7 mm	100 m (> 300 mm = 50 m)

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. Cut sheets should be stored flat.

Handling Precautions for Hot and Humid Environnments

Scotchlite reflective material - 8910 silver fabric 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, greater than 80°F and greater than 70% relative humidity, for a period of weeks. These blemishes do not affect the performance of the product.