



Care Guidelines to Reduce Staining of 3M™ Scotchlite™ Reflective Material

Description

This technical bulletin is for global distribution in recognition of the expanding global manufacturing sites of garment and footwear products utilizing 3M™ Scotchlite™ Reflective Material. Please note that marks caused by abrasion, picking, poor stripping of the paper liner, dirt, or oils are not addressed here.

Stains on the surface of reflective material can appear on garments assembled or stored in hot and humid environments. Stains can appear on any exposed silver glass bead material. 3M testing has shown that these stains are caused by the corrosion of the aluminum between the glass beads when contaminants come in contact with the reflective surface during the application process and the finished garment is subsequently stored in hot and humid conditions. While this process can cause cosmetic imperfections on the garment surface, the aluminum behind the glass beads does not corrode and the reflective performance of the material is not affected.

The likely sources of contaminants, among others, include:

1. Perspiration, salt water or chlorine containing compounds.
2. Strong acids or bases (low pH solutions or high alkaline/caustic solutions).

Staining does not indicate that the product is defective.

Care Guidelines for Handling 3M™ Scotchlite™ Reflective Material in Hot and Humid Environments

If the reflective surface is affected when used in your application, we make the following recommendations to reduce the possibility of staining:

1. Use air conditioning to cool and dehumidify the manufacturing and storage areas.
2. Do not allow perspiration, sewing machine oils, or other contaminants to contact the reflective surface.
3. All workers handling the exposed reflective material surface should wear gloves.
4. Check that the fabric's finishes will not stain the reflective surface.
5. For transfer films, leave the paper liner on the product until the final inspection step. Careful handling must be done to ensure that the paper liner does not fold or otherwise separate from the reflective surface. If this happens, a mark may be left on the reflective surface.
6. For step #5, 3M™ Scotchlite™ Reflective Material – 5807 Custom Cuttable Transfer Film uses a polyester adhesive liner that can be left on during manufacturing without the concern of a mark being left behind.
7. Cover the reflective surface to prevent handling during the manufacturing step. This may be a plastic film or pre-masking tape, depending on the converted part.
8. Ship and store the finished materials in sealed bags with a desiccant.

Recommended Product Choices for Specific Manufacturing Environments

If the care guidelines are not practical in your situation, we recommend you evaluate the following 3M™ Scotchlite™ Reflective Material for converting in high heat and humidity environments:

3M™ Scotchlite™ Reflective Material	
Product Category	High Heat & Humidity >70%RH
Transfer Films	5430, 5440, 5530, 5540, 9720, 9740
Fabric	9920
Industrial Wash	5430, 5440, 5530, 5540, 9720, 9740, 9920
Flame Resistant	5440, 5540, 9740

Important Notice

WARRANTY, LIMITED REMEDY AND DISCLAIMER

3M warrants that 3M™ 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 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 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 0235-02-F-06
St. Paul, MN 55144-1000
800-328-7098
Scotchlite.com
800-364-3577 3M HELPS

3M Canada

P.O. Box 5757
London, Ontario N6A 4T1
800-267-4414
3M.ca/Scotchlite

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