



**Safe Reflections Inc.**



**Technical Data Sheet**

3220 GRANADA AVE N STE 100, SAINT PAUL MN 55128-3550 Phone: (800) 773-8199 <http://www.safereflections.com>

**Eclipse Reflective Graphic Transfers – N/Rainwear SR-NR**

**Description**

Safe Reflections™ Reflective Graphic Transfers are composed of 3M™ Scotchlite™ wide angle, exposed retroreflective lens sheeting combined with a unique proprietary adhesive system that produces a soft, light-weight, flexible, durable, and abrasion resistant reflective transfer for use on most fabric substrates. Safe Reflections reflective graphic transfers are designed to enhance the nighttime visibility of the wearer, while offering detailed graphic design identification.

**Reflective Brilliance**

Nighttime Visibility by Reflected Light: These reflective transfers will appear brilliant silver-white when viewed by a driver using vehicle headlights. It remains highly reflective when viewed at entrance angles.

The coefficient of retroreflection ( $R_A$ ) is measured by retroreflective intensity testing procedures: ASTM E809 and E810 ( $R_A$ )

The following **minimum  $R_A$**  values may be used for specification or purchase description purposes:

Entrance Angle	Observation Angle	Typical $R_A$	Minimum $R_A$	Daytime Color	Reflected Color
-4.0°	0.2°	500	330	Silver	White

**Effective Performance Life**

Safe Reflections reflective graphic transfers retain reflectivity for the normal use life of the garment to which they are applied. Performance can vary depending upon actual use, exposure conditions, and maintenance. Users should test the transfer to satisfy conformance to their own requirements. Safe Reflections reflective graphic transfers are resistant to contact temperatures from 500°F (260°C) to -19°F (-30°C).

**Applications and Uses**

Safe Reflections reflective graphic transfers are designed for use on a variety of fabrics to include:

- Cotton
- Poly Cotton blends
- Stretchable fabrics such as Lycra™
- Fine to heavy Nylons

**Rainwear and Fire Resistant Fabrics**

The design capability and uses for Safe Reflections reflective graphic transfers is virtually endless. Some common uses are T-shirts and sweatshirts; sports active apparel, caps, and bag accessories; work wear uniforms and packs; outwear jackets, vests and rainwear.

While use of Safe Reflections reflective graphic transfers enhances visibility, no reflective material can guarantee absolute visibility, particularly in adverse weather conditions.

### Lamination Instructions

The laminating process and conditions of Safe Reflections reflective graphic transfers will vary according to the fabric to which they are being applied. Work on a flat surface where uniform heat and pressure can be applied. Avoid applying transfer over seams and stitches. Some fabrics, particularly some nylons, should be pre-heated before the lamination process to prevent shrinkage of the material under the transfer. The transfers must be cool to the touch before the paper backing is removed.

<b><u>N/Rainwear</u></b> <b>SR-NR</b>	
Pre-Heat:	Pre-heat under pressure 3 - 5 seconds
Temperature:	300° – 350° F
Dwell Time:	15 - 21 seconds
Pressure:	40 – 50 psi
Cold Press:	Cool (< 100° F) under pressure for 8 – 10 seconds after transfer
<b>*** COLD PEEL: Transfer must be cool to the touch before removing the paper backing! ***</b>	

**Note:** The above instructions are only guidelines. Fabric and application equipment may vary. Always complete test sample prior to production.

Lift the transfer backing from one corner to start, and gently peel the paper away while holding the fabric flat. For best results, peel diagonally across the image. Do not peel with excessive force or speed. On some dark fabrics, an edge outline may occur. If there is a light haze or halo on the periphery of the transfer it can be removed by first brushing it lightly with a medium bristle toothbrush, then reheating the transfer for 1 to 3 seconds. This process can be repeated if condition persists. It is strongly recommended that the above laminating instructions be followed. If you are experiencing any difficulties or problems please contact Safe Reflections immediately for technical assistance.

- IMPORTANT:** If shadowing occurs complete the following instructions to eliminate:
- Place press-board between fabric layers (if more than one layer) for smooth surface
  - Heat press 1 second – 350° – 40 lbs.
  - Brush over shadow area lightly with tooth brush
  - Heat press 1 second – 350° – 40 lbs.

### Care and Maintenance Instructions

It is recommended that transfers be tested when new materials or applications are involved.

- A. For best retention of brightness, turn the garment inside out, hand or machine wash.
- B. Warm / Gentle 105°F (40°C), line dry.

**Note:** To avoid damage to reflective material, commercial laundering is not recommended.

### Unused Transfer Storage / Shelf Life

Store flat in a cool, dry area.

Use within 6 – 9 months of receipt.

Note: Any substitution of these conditions will void all express or implied warranties.