

# limited warranty

## Sunbrella® Graphic System

page 1 of 4

For Glen Raven Acrylics and 3M's opaque graphic films, applied with the Sunbrella Graphics System (SGS) Machine, by Certified Sunbrella Graphics System Manufacturers

The Sunbrella Graphics System Warranty is only valid when the Sunbrella Graphic System registration is submitted to Glen Raven within 10 days of the installation date. The SGS warranty is exclusively available to Certified SGS Manufacturers. Registration of each SGS decorated project is required to maintain the status of a recommended and Certified SGS Manufacturer.

### What is Covered?

The warranty covers the Glen Raven acrylic fabrics\*, and 3M graphic films from becoming unserviceable because of loss of color, strength, or adhesion of film to fabric from normal exposure conditions, including sunlight, mildew, rot, and atmospheric chemicals. Graphics must be installed on a static fabric surface in order for the graphics adhesion warranty to apply. Glen Raven acrylic fabrics are covered for five years. Most 3M graphic films are covered up to 5 years for vertical exposure. However, the warranty varies according to the film series, individual color, type of processing, geographic location, and exposure angle for the face of the graphic. See the attached tables for the specific warranties pertaining to the 3M products. The SGS warranty runs from the date of original installation. Warranty claims can be initiated by calling the Glen Raven service desk at 1-800-788-4413. Glen Raven will supply you with your replacement fabric and film after verification that the claim is justified.

### What Is Not Covered?

This warranty does not cover frames, labor, or installation provided by the manufacturer.

This warranty does not cover damage caused by vandalism, cleaning solutions, paints, solvents, eradicable or other strong chemicals, improperly used high pressure washing equipment, mechanical washing equipment that subjects the graphic to frequent vigorous abrasive scouring action, engine fuels, engine exhaust, steam, oil, grease, tree sap, fire, structural failure, lightning or other natural forces or acts of God.

\*Sunbrella, Sunbrella Plus, Firesist, Firesist Plus, Firesist HUV, Diklon 32, Dickson Acrylic)

This warranty gives you specific legal rights and you may also have other rights that vary state to state. Glen Raven makes no warranty of fitness for any particular purpose whatsoever with respect to the goods being sold. There are no warranties, express or implied, which extend beyond the description on the face of this agreement.

### 3M Graphic Films Approved for Use with the Sunbrella Graphics System

This Agreement covers the 3M products listed below. The corresponding Product Bulletins are available at [www.3m.com/graphics](http://www.3m.com/graphics).

- 3M™ Controltac™ Plus Graphic Film Series 180 - Non Comply (see "Product Bulletin 180")
- 3M™ Controltac™ Plus Graphic Film IJ180-10 - Non Comply (see "Product Bulletin PIJ180")
- 3M™ Controltac™ Plus Graphic Film RG180-10 - Non Comply (see "Product Bulletin PIJ180")
- 3M™ Controltac™ Plus Graphic Film FN180-10 - Non Comply (see "Product Bulletin PIJ180")
- 3M™ Scotchcal™ Graphic Film Series 220 (see "Product Bulletin 220")
- 3M™ Scotchcal™ Graphic Film Series 225 (see "Product Bulletin 225")
- 3M™ Scotchcal™ Graphic Film Series 3650 - Non Comply (see "Product Bulletin 3650")
- 3M™ Scotchcal™ Graphic Film IJ3650-10 - Non Comply (see "Product Bulletin PIJ3650")
- 3M™ Scotchcal™ ElectroCut™ Graphic Film Series 7125 (see "Product Bulletin 7125")
- 3M™ Scotchcal™ ElectroCut™ Graphic Film Series 7725 (see "Product Bulletin 7725")
- 3M™ Controltac™ Plus Conformable Graphic Film 8620 ES (see "Product Bulletin 8620")

### 3M™ MCS™ Warranted Durability for Glen Raven Acrylic Fabrics

The constructions listed in Table 1, Table 2, and Table 3 are also covered by 3M's MCS warranty. Visit [www.3m.com/graphics](http://www.3m.com/graphics) for complete MCS warranty details and 3M Product and Instruction Bulletins. 3M will only honor the durabilities given in Tables 1, 2, and 3 when used with the Sunbrella Graphics System, even if the durability differs from that provided in the 3M Product Bulletins.

### Graphic Performance Life

The performance life for the 3M products is based on field experience and exposure tests conducted throughout the United States. When the graphics are processed and used according to 3M recommendations, they should have the performance life shown in the tables below. The actual performance depends on the following conditions: the correct combination of products (film, ink, and clear), ink formulation, drying methods, preparation of the substrate, application methods, exposure conditions, and cleaning methods.

### Graphic Exposure Definitions



**Vertical Exposure**  
The face of the graphic ± 10° from vertical.



**Non-Vertical Exposure**  
The face of the graphic is ± 45° from vertical.

### 3M™ MCS™ Warranted Graphics for Films 220, 225, 180, 3650, 7125, 7725

#### Compatible Inks & Graphic Protection Options

- 3M™ Screen Printing Ink Series 1900 – line color only
- 3M™ Screen Printing Ink Series 9700UV – line color only
- 3M™ Screen Printing UV Ink Series 9800 – line color only
- 3M™ Screen Printing Gloss Clear 1920DR
- 3M™ Screen Printing Matte Clear 1930
- 3M™ Screen Printing Gloss Clear 9720UV
- 3M™ Screen Printing Matte Clear 9730UV
- 3M™ Screen Printing Gloss Clear 9800CL

Table 1: 3M™ MCS™ Warranted Durability for Films 220, 225, 180, 3650, 7125, 7725

| For Electronic Cutting or Screen Printing                                       |                               |   |                           |   |                           |  |                           |   |                           |
|---|-------------------------------|---|---------------------------|---|---------------------------|--|---------------------------|---|---------------------------|
| Graphic Construction  |                               | Exterior Exposures in the U.S. (years)                        |                           |   |                           | Exterior Exposures in the U.S. Desert Southwest <sup>1</sup> (years) |                           |   |                           |
| Ink Series  | Clear <sup>6</sup>            | Most Film Colors <sup>2</sup><br>(except Clear and Metallics) |                           | Clear and Metallic Film Colors <sup>3</sup> |                           | Most Film Colors <sup>2</sup><br>(except Clear and Metallics)        |                           | Clear and Metallic Film Colors <sup>3</sup> |                           |
|   |                               | Vertical <sup>4</sup>   | Non-Vertical <sup>5</sup> | Vertical <sup>4</sup>                       | Non-Vertical <sup>5</sup> | Vertical <sup>4</sup>  | Non-Vertical <sup>5</sup> | Vertical <sup>4</sup>                       | Non-Vertical <sup>5</sup> |
| Unprinted Film  |                               |   |                           |   |                           |  |                           |   |                           |
| None  | None                          | 5   | 3                         | 5   | 2.5                       | 4  | 1.5                       | 3.5   | 1                         |
| Printed with 3M™ Screen Printing Ink Series 1900 – line color only              |                               |   |                           |   |                           |  |                           |   |                           |
| 1900  | 1920DR <sup>7</sup><br>9720UV | 5   | 3                         | 5   | 2.5                       | 4  | 1.5                       | 3.5   | 1                         |
|   | 9730UV                        | 3   | 1.5                       | 3   | 1.5                       | 2  | .5                        | 2   | .5                        |
|   | 1930 <sup>8</sup>             | 2   | 1                         | 2   | 1                         | 1  | .5                        | 1   | .5                        |
| Printed with 3M™ Screen Printing UV Ink Series 9800 or 9700UV – line color only |                               |   |                           |   |                           |  |                           |   |                           |
| 9700UV<br>9800  | 9720UV                        | 5   | 3                         | 5   | 2.5                       | 4  | 1.5                       | 3.5   | 1                         |
|   | 9800CL                        | 5   | 2.5                       | 5   | 2.5                       | 3.5  | 1                         | 3.5   | 1                         |
|   | 9730UV                        | 3   | 1.5                       | 3   | 1.5                       | 2  | 0.5                       | 2   | 0.5                       |

<sup>1</sup> Includes Arizona, New Mexico, and desert areas of California, Nevada, Utah, and Texas. A detailed map is available by request.  
<sup>2</sup> With long exterior exposure, unprinted film colors 10, 20, 163, 263, 273, and 286 may chalk. This is considered normal and acceptable wear. Where cleaning is not practical, sign graphics must be clear coated with either screen print clear 1920DR or screen print clear 9720UV.  
<sup>3</sup> Clear and metallic film colors: 114, 120, 131, 201, 203, 206, 208, 209, 210, 211, 216, 217, 218, 220, 221, 227, 228, 229, 231, 237, 239, 241.  
<sup>4</sup> Vertical exposure: The face of the graphic is ± 10° from vertical.  
<sup>5</sup> Non-vertical exposure: The face of the graphic is 10° to 45° from vertical. There is no warranty for applications where the face of the graphic is greater than 45° from vertical.  
<sup>6</sup> Clear 1920DR, 1930, 9720UV, 9730UV, and 9800CL are for application by screen printing only.  
<sup>7</sup> Clear 1920DR must be oven dried for 2 hours at 150°F (65°C).  
<sup>8</sup> Clear 1930 may haze. This is considered normal and acceptable wear.

### 3M™ MCS™ Warranted Graphics for Film 8620 ES

**Compatible Products**

- Scotchprint® Electronic Graphics System
- Scotchprint® Toner Series 8700/8800
- 3M™ Trident Transfer Media
- 3M™ Scotchcal™ Luster Overlamine 8519
- 3M™ Scotchcal™ Matte Overlamine 8520
- 3M™ Screen Printing Gloss Clear 1920DR

Table 2: 3M™ MCS™ Warranted Durability for Film 8620 ES

| For Electrostatic Printing  |  |                           |  |                           |
|---|--|---------------------------|--|---------------------------|
| Graphic Construction<br><i>Film 8620 ES imaged with Trident transfer paper and protected with one of the following:</i> | Exterior Exposures in the U.S. (years) |                           | Exterior Exposures in the U.S. Desert Southwest <sup>1</sup> (years) |                           |
|   | Vertical <sup>2</sup>                  | Non-Vertical <sup>3</sup> | Vertical <sup>2</sup>  | Non-Vertical <sup>3</sup> |
| 8519<br>8520<br>1920DR <sup>4</sup>   | 4                                      | 2                         | 2.5  | 1                         |

<sup>1</sup> Includes Arizona, New Mexico, and desert areas of California, Nevada, Utah, and Texas. A detailed map is available by request.  
<sup>2</sup> Vertical exposure: The face of the graphic is ± 10° from vertical.  
<sup>3</sup> Non-vertical exposure: The face of the graphic is 10° to 45° from vertical. There is no warranty for applications where the face of the graphic is greater than 45° from vertical.  
<sup>4</sup> Clear 1920DR is for application by screen printing only, and must be oven dried.

### 3M™ MCS™ Warranted Graphics for Films IJ/RG/FN180-10 and IJ3650-10

**Compatible Inks and Printers for Film IJ180-10 and IJ3650-10**

- 3M™ Piezo Ink Jet Ink Series 1500  
 VUTEk UltraVu™ 150 Printer  
 VUTEk UltraVu™ 2360/3360 Printers  
 VUTEk UltraVu™ 3300/5300 Printers
- 3M™ Piezo Ink Jet Ink Series 2600UV  
 3M™ Printer 2500UV
- 3M™ Piezo Ink Jet Ink Series 6000  
 Océ Arizona 30s Printer
- 3M™ Piezo Ink Jet Ink Series 4600  
 Scitex Pressjet-W™ Printer

**Compatible Inks and Printers for Film RG180-10**

- 3M™ Piezo Ink Jet Ink Series 6800  
 Océ Arizona 180 Printer  
 Océ Arizona 90 Printer

**Compatible Inks and Printers for Film FN180-10**

- 3M™ Piezo Ink Jet Ink Series 5500  
 Océ Arizona 600 Printer

Table 3: 3M™ MCS™ Warranted Durability for Films IJ/RG/FN180-10, IJ3650-10

| For Piezo Ink Jet Printing  |  |  |                                 |                       |                           |                       |                           |
|---|--|--|---------------------------------|-----------------------|---------------------------|-----------------------|---------------------------|
| Graphic Construction <sup>4</sup><br><i>Film IJ/RG/FN180-10 or IJ3650-10 and:</i> | Exterior Exposures in the U.S. (years) | Exterior Exposures in the U.S. Desert Southwest <sup>1</sup> (years) |                                 |                       |                           |                       |                           |
|   |  | 3M Ink Series  | Graphic Protection <sup>5</sup> | Vertical <sup>2</sup> | Non-Vertical <sup>3</sup> | Vertical <sup>2</sup> | Non-Vertical <sup>3</sup> |
|   |  | 1500<br>2600UV<br>4600   | 8519<br>8520                    | 4                     | 2                         | 3                     | 1                         |
|   |  | 5500<br>6000<br>6800   | 1920DR<br>9720UV                | 3                     | 2                         | 2                     | 1                         |

<sup>1</sup> Includes Arizona, New Mexico, and desert areas of California, Nevada, Utah, and Texas. A detailed map is available by request.  
<sup>2</sup> Vertical exposure: The face of the graphic is ± 10° from vertical.  
<sup>3</sup> Non-vertical exposure: The face of the graphic is 10° to 45° from vertical. There is no warranty for applications where the face of the graphic is greater than 45° from vertical.  
<sup>4</sup> Refer to the current version of “Product Bulletin PIJ180”, at [www.3m.com/graphics](http://www.3m.com/graphics), for the current list of the compatible inks, printers, and graphic protection options.  
<sup>5</sup> Clear 1920DR and 9720UV are for application by screen printing only. Clear 1920DR must be oven dried.

## 3M Performance Guarantee for Glen Raven Acrylic Fabrics

This Guarantee covers the performance of the 3M recommended graphic films and required 3M graphic protection when used with Glen Raven acrylic fabrics and the printers and inks listed in Table 4, when graphics are produced according to 3M's recommendations, and the maximum total ink coverage is limited to 270%. The films are guaranteed to be free of media-induced artifacts that can cause misprints during printing, and to adhere to the acrylic fabrics. This Guarantee is not for finished graphics, and does not cover image quality, color fade, peeling, etc. Visit [www.3m.com/graphics](http://www.3m.com/graphics) for complete Performance Guarantee details and 3M Product and Instruction Bulletins.

Table 4: 3M Performance Guarantee Durability for Films IJ/RG/FN180-10 or IJ3650-10

| Graphic Construction <sup>4,5</sup><br><i>Film IJ/RG/FN180-10 or IJ3650-10 using graphic protection 8519, 8520, 1920DR or 9720UV and:</i> |                      | Exterior Exposures in the U.S.<br>(years) |                           | Exterior Exposures in the U.S. Desert Southwest <sup>1</sup><br>(years) |                           |
|---|----------------------|---|---------------------------|---|---------------------------|
| Printer   | Ink Series           | Vertical <sup>2</sup>                     | Non-Vertical <sup>3</sup> | Vertical <sup>2</sup>   | Non-Vertical <sup>3</sup> |
| ColorSpan DisplayMaker® 72  | SolaChrome HR        | 2   | 0                         | 0   | 0                         |
| Mimaki JV 3 Series  | MS, SS, S2           |   |                           |   |                           |
| Mutoh Falcon II Outdoor   | Eco-Solvent Plus™    |   |                           |   |                           |
| Mutoh Toucan  | Toucan Solvent Based |   |                           |   |                           |
| Mutoh Toucan LT   | LT                   |   |                           |   |                           |
| Océ CS6060  | Océ IJC610           |   |                           |   |                           |
| Roland SOLJET Pro II Ex Series  | Roland Eco-SOL       |   |                           |   |                           |
| Seiko ColorPainter™ 64S   | EG-Outdoor           |   |                           |   |                           |
| Scitex Vision TURBOjet  | TJ100 Supreme        |   |                           |   |                           |
| Scitex Vision XLJet   | XL200, XL300 Supreme |   |                           |   |                           |
| VUTEK™ x300, x360   | Inkware Series 5     |   |                           |   |                           |

<sup>1</sup> Includes Arizona, New Mexico, and desert areas of California, Nevada, Utah, and Texas. A detailed map is available by request. There are no warranted applications for this region.

<sup>2</sup> Vertical exposure: The face of the graphic is  $\pm 10^\circ$  from vertical.

<sup>3</sup> Non-vertical exposure: The face of the graphic is greater than  $10^\circ$  from vertical. There is no warranty for non-vertical applications.

<sup>4</sup> Clear 1920DR and 9720UV are for application by screen printing only. Clear 1920DR must be oven dried.

<sup>5</sup> New combinations of printers and inks are added from time to time. Check Product Bulletin PLJ180 for the most up-to-date information.

Sunbrella® is a registered trademark of Glen Raven, Inc.  
 3M, Controltac, ElectroCut, MCS and Scotchcal are trademarks of 3M Company.  
 UltraVu is a trademark of VUTEK Inc.  
 Pressjet-W is a trademark of Scitex Corporation Ltd.  
 ColorPainter is a trademark of Seiko I Infotech Inc.  
 DisplayMaker is a registered trademark of McDermid ColorSpan Inc.  
 Mutoh is a registered trademark of Mutoh America, Inc.  
 Roland and SOLJET are trademarks of Roland DGA Company  
 All other trademarks are the property of their respective owners.



Glen Raven Custom Fabrics, LLC  
 1831 North Park Avenue  
 Glen Raven, NC 27217-1100  
 336-227-6211