



Applicator's Quick Reference for Commercial Fleet and Vehicle Graphics

Overview

The tables on pages 2-4 provide an overview and comparison of 3M Commercial Graphics films recommended for application to commercial fleet and vehicles. This document is not a substitute for reading and following the information in all applicable 3M Product and Instruction Bulletins for the 3M materials you are using. Refer to page 5 for how to order Bulletins.

Products

- 3M™ Controltac™ Graphic Films
- 3M™ Controltac™ Graphic Films with Comply™ Adhesive
- 3M™ Controltac™ Graphic Films with Comply™ v2 Adhesive
- 3M™ Scotchcal™ Graphic Films
- 3M™ Scotchlite™ Graphic Films
- 3M™ Scotchlite™ Reflective Graphic Films
- 3M™ Diamond Grade™ Reflective Graphic Films

Terms

| | | |
|---------|-----|--|
| Product | C | Comply adhesive (original version) |
| | Cv2 | Comply adhesive (version 2) |
| | CR | Comply adhesive (original version), removable |
| | FN | Films for Océ Arizona 600 piezo inkjet printers |
| | IJ | Films for most piezo inkjet printing <i>Check film's Product Bulletin for printer compatibility</i> |
| | R | Removable |
| | RG | Films for Océ Arizona 180 or 90 piezo inkjet printers |
| | LF | Layflat (liner) |

Durability The value shown is the maximum Expected Durability, in years, for the best construction available for this product. This may not be a warranted durability period and may vary by graphic construction and application surface. Refer to the base film's Product Bulletin for complete details.

Lifetime warranty. This is available only for selected graphic films applied to fleet trailers. Where "Lifetime" is shown in the table, refer to that film's Product Bulletin for complete details.

Mil The mil, or thickness, is for unprocessed film without adhesive. Thickness is increased when an overlamine is applied.

| | | |
|-------------------------|---------|--|
| Imaging Method | EC | Electronic cutting |
| | ES | Electrostatic imaging |
| | PIJ | Piezo inkjet printing |
| | SP | Screen printing |
| | GE | Gerber thermal transfer |
| | TIJ | Thermal inkjet printing |
| Adhesive | PA | Pressure-activated adhesive |
| | PA/C | Pressure-activated with air release channels |
| | PA/Cv2 | Pressure-activated adhesive with air release channels, version 2 |
| | PSA | Pressure-sensitive adhesive |
| Application Temperature | | Application temperature is given in degrees Fahrenheit |
| | N/R | Not recommended |
| Special Techniques | IB | Instruction Bulletin; this bulletin may contain important information for using the product described in the row. |
| | SST | Stainless steel requires special cleaning and application techniques (Instruction Bulletin 5.1). Always contact Technical Service, 1-800-328-3908, to discuss your application before using a film on stainless steel. |
| Removal | CHG | Changeable; removes without heat or chemicals and leaves little or no adhesive residue |
| | P | Permanent; not intended for removal |
| | R | Removable and leaves 30% or less adhesive residue. |
| | R w/H | Removal requires heat |
| | R w/H,C | Removal requires heat and/or chemicals |

| Film Number | Durability, in years | Film Description | | | Adhesive Description | | Liner | Application Temperature °F | | | Special Techniques | Removal |
|-------------|----------------------|------------------|------------|----------------|----------------------|------------|---------------|----------------------------|--------|-------------|--------------------|----------|
| | | Mil | Material | Imaging Method | Type | Color | | Flat | Rivets | Corrugation | | |
| IJ40R | 3 | 3 | vinyl | PIJ | PSA | Gray | Polycoated | 40-100 | N/R | N/R | | R w/H |
| 50 | 5 | 3 | vinyl | EC,TT | PSA | Clear | Paper | 40-100 | N/R | N/R | | R w/H |
| 160 | 5 | 4 | vinyl | SP,EC | PA | Gray/clear | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| IJ160 | 3 | 4 | vinyl | PIJ | PA | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| FN160 | 3 | 4 | vinyl | PIJ | PA | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| RG160 | 3 | 4 | vinyl | PIJ | PA | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| 160C | 5 | 4 | vinyl | SP,EC | PA/C | Gray/clear | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| IJ160C | 3 | 4 | vinyl | PIJ | PA/C | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| FN160C | 3 | 4 | vinyl | PIJ | PA/C | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| RG160C | 3 | 4 | vinyl | PIJ | PA/C | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| 180 | 7, Lifetime | 2 | vinyl | SP,EC | PA | Gray/clear | Polycoated | 40-100 | 40-100 | 50-100 | | R w/H, C |
| IJ180 | 5 | 2 | vinyl | PIJ | PA | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| RG180 | 5 | 2 | vinyl | PIJ | PA | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| 180C | 7, Lifetime | 2 | vinyl | SP,EC | PA/C | Gray/clear | Polycoated | 40-100 | 40-100 | 50-100 | | R w/H, C |
| IJ180C | 5 | 2 | vinyl | PIJ | PA/C | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| FN180C | 5 | 2 | vinyl | PIJ | PA/C | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| RG180C | 5 | 2 | vinyl | PIJ | PA/C | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| 180Cv2 | 7, Lifetime | 2 | vinyl | SP,EC | PA/Cv2 | Gray/clear | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| IJ180Cv2 | 5 | 2 | vinyl | PIJ | PA/Cv2 | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| FN180Cv2 | 5 | 2 | vinyl | PIJ | PA/Cv2 | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| RG180Cv2 | 5 | 2 | vinyl | PIJ | PA/Cv2 | Gray | Polycoated | 40-100 | 50-100 | 50-100 | | R w/H, C |
| 181 | 5 | 2 | vinyl | SP,ES | PA | Gray | Polycoated | 50-100 | 50-100 | 55-100 | SST | P |
| 190 | 5 | 2 | vinyl | SP, PIJ | PAA | | Polycoated | 40-100 | N/R | N/R | | P |
| 210-420SG | 5 | 3 | vinyl | EC,GE,SP | PSA | Clear | Synthetic | 40-100 | 40-100 | N/R | | P |
| 210-431SG | 3 | 3 | vinyl | EC,GE,SP | PSA | Clear | Synthetic | 40-100 | 40-100 | N/R | | P |
| 210SG | 5 | 3 | vinyl | EC, SP, GE | PSA | Clear | Synthetic, EC | 40-100 | 40-100 | N/R | | P |
| 220 | 8 | 2 | vinyl | GE,EC | PSA | Clear | Paper | >40 | >40 | N/R | | P |
| 225 | 8 | 2 | vinyl | EC,GE | PSA | Clear | Synthetic, EC | >40 | >40 | N/R | | P |
| 250C | 7, Lifetime | 2 | vinyl | EC,SP,GE | PA/C | Gray | Polycoated | 40-100 | 40-100 | 50-100 | | R w/H, C |
| 280 | 7 | 7 | reflective | EC | PSA | Clear | Polycoated | 55-100 | 60-100 | N/R | | P |
| 281 | 7 | 7 | reflective | EC,GE | PSA | Clear | Synthetic, EC | 55-100 | 60-100 | N/R | | P |

| Film Number | Durability, in years | Film Description | | | Adhesive Description | | Liner | Application Temperature °F | | | Special Techniques | Removal |
|-------------|----------------------|------------------|---------------|----------------|----------------------|------------|------------|----------------------------|--------|------------------|--------------------|---------|
| | | Mil | Material | Imaging Method | Type | Color | | Flat | Rivets | Corru- gation | | |
| 680 | 7 | 7 | reflective | SP,ES,EC | PA | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | P |
| 680 | 5 | 7 | reflective | PIJ | PA | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | P |
| RG680 | 5 | 7 | reflective | PIJ | PA | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | P |
| 680CR | 8 | 7 | reflective | SP,ES,EC | PA/C | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | R |
| IJ680CR | 5 | 7 | reflective | PIJ | PA/C | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | R |
| FN680CR | 5 | 7 | reflective | PIJ | PA/C | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | R |
| RG680CR | 5 | 7 | reflective | PIJ | PA/C | Clear | Polycoated | 40-100 | 45-100 | 45-100 | | R |
| 983 | 7 | 17 | Diamond Grade | -- | PSA | Clear | Synthetic | 60-100 | N/R | N/R | IB 5.13 | P |
| 1000 | 5 | 2 | vinyl | SP | PSA | Gray/clear | Polycoated | >50 | >50 | N/R | | P |
| 1000C | 5 | 2 | vinyl | SP | PA/C | Gray/clear | Polycoated | >50 | >50 | N/R | | P |
| 3470 | 3 | 4 | vinyl | SP,EC | PSA | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| IJ3470 | 3 | 4 | vinyl | PIJ | PSA | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| RG3470 | 3 | 4 | vinyl | PIJ | PSA | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| 3500C | 2 | 4 | vinyl | SP | PA/C | Gray | Polycoated | 28-100 | 28-100 | N/R | | CHG |
| 3545C | 3 | 4 | polyolefin | PIJ | PA/C | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| RG3545C | 3 | 4 | polyolefin | PIJ | PA/C | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| 3552C | 2 | 2 | vinyl | SP | PA/C | Gray | Polycoated | 28-100 | 28-100 | N/R | | CHG |
| FN3552C | 2 | 2 | vinyl | PIJ | PA/C | Gray | Polycoated | 28-100 | 50-100 | 60-100 | | CHG |
| IJ3552C | 2 | 2 | vinyl | PIJ | PA/C | Gray | Polycoated | 28-100 | 50-100 | 60-100 | | CHG |
| RG3552C | 2 | 2 | vinyl | PIJ | PA/C | Gray | Polycoated | 28-100 | 50-100 | 60-100 | | CHG |
| FN3555 | 2 | 4 | vinyl | PIJ | PSA | Gray | Polycoated | 28-100 | 28-100 | N/R | | CHG |
| IJ3555 | 2 | 4 | vinyl | PIJ | PSA | Gray | Polycoated | 28-100 | 28-100 | N/R | | CHG |
| RG3555 | 2 | 4 | vinyl | PIJ | PSA | Gray | Polycoated | 28-100 | 28-100 | N/R | | CHG |
| 3650 | 7 | 2 | vinyl | SP,EC | PSA | Gray/clear | Polycoated | 50-100 | 50-100 | N/R | | P |
| IJ3650-10 | 4 | 2 | vinyl | PIJ | PSA | Gray/clear | Polycoated | 50-100 | 50-100 | N/R | | P |
| FN3650-114 | 4 | 2 | vinyl | PIJ | PSA | Clear | Polycoated | 50-100 | 50-100 | N/R | | P |
| RG3650-114 | 4 | 2 | vinyl | PIJ | PSA | Clear | Polycoated | 50-100 | 50-100 | N/R | | P |
| 3670LF | 3 | 2 | vinyl | SP | PSA | Black | Polycoated | >40 | N/R | N/R | | P |

| Film Number | Durability, in years | Film Description | | | Adhesive Description | | Liner | Application Temperature °F | | | Special Techniques | Removal |
|-------------|----------------------|------------------|------------------------|----------------|----------------------|------------|-----------------------|----------------------------|--------|------------------|--------------------|----------|
| | | Mil | Material | Imaging Method | Type | Color | | Flat | Rivets | Corru- gation | | |
| 3690 | 7 | 2 | vinyl | SP,EC | PSA | Gray | Paper | >40 | >40 | N/R | | P |
| 3690C | 7 | 2 | vinyl | SP,EC | PA/C | Gray | Polycoated | 40-90 | 40-90 | N/R | | P |
| 3690LF | 7 | 2 | vinyl | SP,EC | PSA | Gray | Polycoated | >40 | >40 | N/R | | P |
| 5000 | 1.5 | 6 | reflective | SP,ES,EC | PSA | White | Polycoated | 32-85 | 32-85 | N/R | | P |
| IJ5000 | 1.5 | 6 | reflective | PIJ | PSA | White | Polycoated | 32-85 | 32-85 | N/R | | P |
| 5100R | 4 | 6 | reflective | SP,ES, EC | PSA | White | Polycoated | 32-85 | 32-85 | N/R | | R w/H |
| FN5100R | 4 | 6 | reflective | PIJ | PSA | White | Polycoated | 32-85 | 32-85 | N/R | | R w/H |
| IJ5100R | 4 | 6 | reflective | PIJ | PSA | White | Polycoated | 32-85 | 32-85 | N/R | | R w/H |
| RG5100R | 4 | 6 | reflective | PIJ | PSA | White | Polycoated | 32-85 | 32-85 | N/R | | R w/H |
| 6060 | 3 | 10 | high intensity | SP | PSA | White | Synthetic | 55-100 | N/R | N/R | | P |
| 7125 | 7 | 2 | vinyl | EC,TT,SP | PSA | Clear | Paper | 50-90 | 50-90 | N/R | | P |
| 7725 | 7 | 2 | vinyl | EC,SP | PSA | Clear | Synthetic, EC | >40 | >40 | N/R | | P |
| 8000 | 7 | 2 | vinyl | SP,EC | PSA | Gray/clear | Paper | >40 | >40 | N/R | | R |
| 8000LF | 7 | 2 | vinyl | SP,EC | PSA | Gray/clear | Polycoated | >40 | >40 | N/R | | R w/H, C |
| 8171 | 1 | 4 | vinyl (50% perforated) | SP | PSA | Clear | Polycoated w/ plastic | 40-100 | N/R | N/R | IB 5.4 | R w/H |
| IJ8171 | 1 | 4 | vinyl (50% perforated) | PIJ | PSA | Clear | Polycoated w/ plastic | 40-100 | N/R | N/R | IB 5.4 | R w/H |
| RG8171 | 1 | 4 | vinyl (50% perforated) | PIJ | PSA | Clear | Polycoated w/ plastic | 40-100 | N/R | N/R | IB 5.4 | R w/H |
| 8174 | 1 | 4 | vinyl (40% perforated) | SP | PSA | Clear | Polycoated w/ plastic | 40-100 | N/R | N/R | IB 5.4 | R w/H |
| 8522 | 3 | 7 | synthetic | IJ | PSA | Gray | Low slippage | 28-110 | 28-110 | N/R | | CHG |
| 8620 | 7 | 2 | vinyl | ES | PA | Gray | Polycoated | 40-100 | 40-100 | 50-100 | | R w/H, C |
| 8620C | 7 | 2 | vinyl | ES | PA/C | Gray | Polycoated | 40-100 | 40-100 | 50-100 | | R w/H, C |
| 8620Cv2 | 7 | 2 | vinyl | ES | PA/Cv2 | Gray | Polycoated | 40-100 | 40-100 | 50-100 | | R w/H, C |
| 8640C | 5 | 4 | vinyl | ES | PA/C | Gray | Polycoated | 40-100 | 40-100 | N/R | | R w/H |
| 8652C | 2 | 2 | vinyl | ES | PA/C | Gray | Polycoated | 28-100 | 28-100 | N/R | IB 5.36 | CHG |
| 8655C | 1 | 4 | vinyl | ES | PA/C | Gray | Polycoated | 28-110 | 28-110 | N/R | | CHG |
| 8671 | 1 | 4 | vinyl (50% perforated) | ES | PSA | Clear | Polycoated | 40-100 | N/R | N/R | IB 5.4 | R w/H |
| 8674 | 1 | 4 | vinyl (40% perforated) | ES | PSA | Clear | Polycoated | 40-100 | N/R | N/R | IB 5.4 | R w/H |

Edge Sealers

When in doubt, check the film's Product Bulletin for the appropriate edge sealer. These are general guidelines.

| Type of 3M Films | Edge Sealer | Minimum Temperature |
|--------------------|-------------|---------------------|
| Vinyl films | 3950 | None |
| Reflective film | 4433 | 55°F (13°C) |
| Diamond Grade film | Toner 880 | 50°F (10°C) |

Bulletin Change Summary

Added to the table: Films 180Cv2, IJ180Cv2, FN180Cv2, RG180Cv2, 190, 1000, 1000C, 3670LF, 8620Cv2

Removed, discontinued: Films 1-57PN, IJ20P, IJ20R, RG20P, RG20R, IJ40P, RG40R, 3680, 7025, 7725SE-400, FN8171, 8619, 8640, 8642

Other changes: Explanations of table headings and details to consider when using this table were updated on page 1.

3M Related Literature

Before starting any job, be sure you have the most recent Product and Instruction Bulletins.

Listed below is related 3M technical literature that may be of interest. You may view and print these Bulletins from our Web site at 3Mgraphics.com, or order them via our Fax-on-Demand (FOD) system. Call one of these phone numbers to order the desired bulletins, and specify the FOD document number provided in the chart.

United States or Canada: 1-800-364-0768
International: 1-650-556-8417

| Subject | Bulletin No. | FOD No. |
|--|--------------|---------|
| Product Bulletins | | |
| Films Order an index from the Fax-on-Demand system to identify the FOD No. for the film bulletins you need. | | |
| Instruction Bulletins | | |
| Application, Substrate Selection, Preparation and Substrate-specific Application Techniques | 5.1 | 7001 |
| Application, General Procedures for Interior and Exterior Dry Applications | 5.5 | 7005 |
| Application, Special Applications and Vehicles | 5.4 | 7004 |
| Cutting and Applying Curtain Sided Vehicle Film | 5.12 | 7012 |
| Applying 3M™ Scotchlite™ Diamond Grade™ Conspicuity Film | 5.13 | 7013 |
| Application: Special Considerations for Automobiles, Vans and Buses; Pre-Application Inspection Forms | 5.36 | 7036 |
| Storage, Handling, Maintenance, Removal | 6.5 | 8505 |
| Other Documents | | |
| 3M Graphics Market Center Warranty Brochure | | 9503 |

3M

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