



Scotchcal™

High Performance Striping and Graphics

Application, Maintenance and Removal

For Professional Applicators

Instruction Bulletin 2-13

February, 2000

Replaces IB 2-13 dated June, 1997

Global Use

Description

This bulletin gives specific instructions to the professional applicator for the application of stripes, legends, roll goods and fabricated parts to flat and curved surfaces. If a more detailed or pictorial description is necessary, please consult with your 3M representative.

General Requirements

IMPORTANT: Read all instructions before beginning application.

Application Tools

3M Part Number

Blue or Gold Plastic Squeegee

#71601, #71602

Low Friction Squeegee Sleeve

#71603

(For certain applications, a low friction sleeve on the plastic applicator should be used to ease application and minimize the possibility of surface scratching.)

Air Release Tool

#71604

Razor knife

Masking tape

Detergent and water solution (2-3 drops per quart of water for wet applications)

Spray bottle

Cleaners

- 3M™ Woodgrain & Stripe Remover

#08907

- 3M™ Woodgrain & Stripe Adhesive Remover

#08908

- 3M™ General Purpose Adhesive Cleaner

#08984

- 3M™ Prep Solvent - 70

#08973

- Isopropyl Alcohol

- VM & P Naptha

Storage

It is recommended that temperatures of 13°C-32°C (55°F-90°F) and 44%-55% relative humidity be maintained in the film storage location. Do not store in direct sunlight. Premasked fabricated parts should be used within one year of purchase.

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Temperature	Films should be applied when air and application surface temperatures are between the 13°C-32°C (55°F-90°F). Surfaces may be heated in order to raise the surface temperature. This may be done by portable heater, heat lamps or hot water.
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Surface Preparation	<p>All surfaces must be cleaned prior to application of film or fabricated parts. On repainted vehicles, paint must be thoroughly dry and cured before any attempt to apply film to the vehicle is made in order to avoid film bubbling due to paint out-gassing. Check paint manufacturer's instructions for recommended cure time and method.</p> <p>The following procedure is recommended:</p> <ol style="list-style-type: none">1. Remove any grease or tar which might be present.2. Wipe with isopropyl alcohol or other residue-free cleaner.3. Dry the surface with clean, lint-free cloth before the cleaning solvent evaporates.
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Overlapped Stripes	Multiple piece stripes that are to be applied down the side of a vehicle should be applied starting at the rear of the vehicle. Each piece must overlap the last piece approximately 6 mm (1/4") but not more than 12 mm (1/2").
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Application Procedure	<ol style="list-style-type: none">1. Make sure the film and vehicle temperatures are between 13°C-32°C (55°F-90°F) for best results.2. Vehicle surface must be free of wax, grease, oil, etc.3. Position the stripe or fabricated part as desired on the vehicle. Use one of the following methods.<ol style="list-style-type: none">a) For large pieces or stripes, use masking tape to position and hold the part on the vehicle. Apply a masking tape hinge to the piece, if necessary, to further stabilize the part.b) If the part is small, freely position and apply the part after liner removal.4. Remove the liner by flicking a corner of the film away from the liner and pulling the liner away from the part at a 180° angle.5. For large graphics or wide stripes, a wet application method is suggested. After the liner has been removed, spray the adhesive side of the part and the vehicle surface to which it is to be applied with the suggested detergent and water solution. Apply the part to the vehicle as usual, but be sure to squeegee out all liquid from beneath the part.
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Application Procedure (continued)

6. Using a plastic squeegee, press the part firmly to the vehicle. Use vertical, firm, overlapping strokes. Hold the end of the part off the vehicle with light tension to prevent it from pre-adhering and forming air bubbles. If narrow striping is applied with thumb pressure to avoid stretching the stripe, a second pass with a squeegee will avoid post-application film bubbling.
7. Remove the application tape from the part by pulling it directly back upon itself at a 180° angle to the part. Use a slow, constant speed, taking care to avoid pulling against the graphic areas which contain points or sharp corners.
8. Re-squeegee the entire surface of the part to obtain maximum adhesion to the surface and to remove all air bubbles and wrinkles.
9. Inspect application for bubbles and/or areas not completely adhered. Remove bubbles as follows:
 - a) Use an air release tool or straight pin to puncture the bubble at its edge.
 - b) Use finger or squeegee to force air out through the hole made in the film.

Maintenance

A wet cleaner of a type suitable for high-quality painted surfaces is recommended for use on 3M™ Scotchcal™ films and graphics. The cleaner chosen must be:

1. Non-abrasive.
2. Neither highly acidic nor highly alkaline.
3. Free of strong aromatic solvents or alcohols.

Part Repair

Depending upon substrate, extent of damage, and length of exposure, total replacement of the part may be necessary. In some cases, the useful life of the part may be extended to the normal durability limit by repair.

Removal

The following are recommended removal methods for Scotchcal films.

Method A

1. Use 3M™ Stripe Off Wheel or 3M™ Scotchbrite™ Molding Adhesive & Stripe Removal Disk System. Refer to appropriate bulletin for product information and instructions.

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Removal (continued)

Method B

1. Heat one corner of the graphic with a heat gun, heat lamp or hot water. Insert a razor or knife edge under the corner to loosen the film. Pull back slowly at less than a 90° angle while continuing to apply heat to the film just ahead of the area which is being removed. Slow pulling action is required where paint to metal bond may be weak.
2. Use 3M™ General Purpose Adhesive Cleaner or 3M™ Woodgrain & Stripe Adhesive Remover for any remaining adhesive residue.

Method C

1. Use 3M™ Woodgrain & Stripe Remover to remove the part.
2. Use 3M™ General Purpose Adhesive Cleaner or 3M™ Woodgrain & Stripe Adhesive Remover for any remaining adhesive residue.

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