



Product Bulletin GRS (UK)

Release B, Effective: August, 1998

Graphic Removal with 3MTM Graphic Remover System

Product Description

3MTM Graphic Remover System is a pH-neutral film/adhesive remover system intended specifically for the removal of 3MTM ControltacTM 180, ScotchcalTM 100 and TartanTM 2500 series films. The 3M Graphic Remover System will also remove most screen printed PSA materials.

Health and Safety

Refer to the package label and the Material Safety Data Sheet for health, safety, and handling information on the products referenced in this bulletin. For 3M products, if necessary, you may contact our Toxicology/Product Responsibility Department on 01344 858000. Make sure that you follow all recommended safety procedures as laid down in the MSDS and on the label. Use of gloves/goggles and respirator recommended.

Limitation of the System

Test before using. The information contained herein is based on data 3M believes to be reliable but no warranty is given.

Temperature Restriction

The 3M Graphic Remover System is intended for use on substrates with a surface temperature of at least 10°C (50°F). If it is 29°C (85°F) or above, move the vehicle to a shaded area and allow to cool down.

Paint Damage

Repaired or re-sprayed paint surfaces using certain air-dried, poor quality paints may be adversely effected by this remover system. Customers are advised to test the 3M Graphic Remover System on a discreet area of paint work which is the same as the eventual application surface prior to use. 3M does not accept liability for any damage to such surfaces.

Shelf-life / Storage

The 3M Graphic remover system may be stored unopened for a period of up to 2 years after purchasing without affecting the product's performance. Once the container has been opened the maximum storage life is 1 years.

Type of Films

The 3M Graphic Remover System is recommended for the removal of the following materials:

ScotchcalTM 100 series, ControltacTM 180 series, Controltac 180 printed with Scotchcal 1900/1920 inks, Controltac 180 printed with Scotchcal 9700 UV/9720 UV inks, perforated Scotchcal 5690 film, ScotchprintTM 8620/8910, 8620/8920, 8620/8911 films and TartanTM 2500 series film.

If you are unsure as to what type of marking you are trying to remove, follow the removal instructions which are mentioned in this bulletin, but attempt to remove only a small piece of a marking. If the amount of adhesive residue exceeds 25% after the film has been removed, the remover is not recommended for use.

Removal

Coverage / Removal Rates

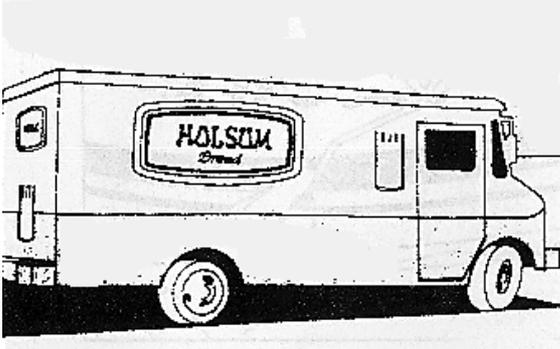
The coverage of 3M Graphic Remover System is approx. 3.5m² / litre and the removal rate of 2.3m²/hour

Required Equipment

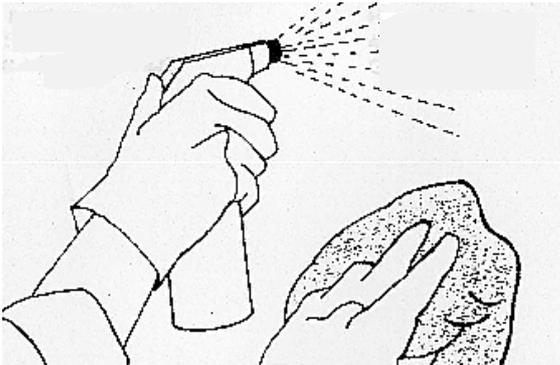
- 2 inch (5cm) wide masking tape
- paper towels
- paint brush or paint roller
- plastic applicator
- rivet brush

Removal Instructions

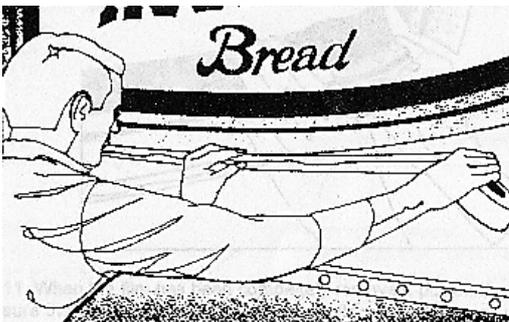
1. Test 3M Graphic Remover System for possible paint damage on a discreet area of paint work which is the same as the eventual application surface prior to use.



2. Make certain that you have all the required equipment as listed in the equipment list. Follow all recommended safety procedures according to the MSDS and container label.
3. Clean the surface and marking with detergent and water. Dry the surface thoroughly before proceeding.

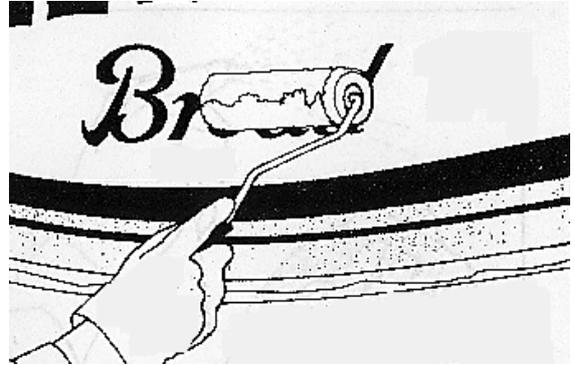


4. To minimise clean-up of film remover the following method should be used: Mask the surface around markings and make a 'drip trough' with masking tape or cardboard to prevent residue dripping onto surfaces around the marking.

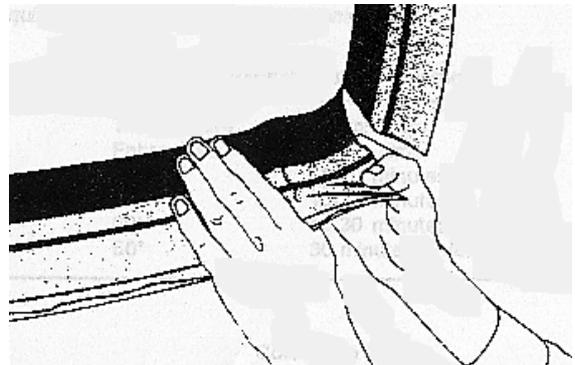


5. Make certain that the application surface temperature is at least 10°C (50°F). If it is 29°C (85°F) or above, move the vehicle to a shaded area and allow to cool down.

6. Make certain that film being removed is one of the materials recommended above.
7. Using a paint brush or roller, thoroughly coat the marking with a thin layer of 3M Graphic Remover System. Keep the container covered when not in use to prevent too rapid evaporation of solvent.



8. Allow the film remover to dry for at least 15 to 30 minutes after application. Cooler temperatures will require additional drying time.
9. Test for removability by grasping a corner of the film and pulling from the surface at an angle of less than 90° with gentle / moderate force. The film should stretch like rubber while being removed; if it is brittle, stop, apply a second coat, let dry and proceed with the removal.



10. When the film has been completely removed, pull off the masking tape. Make sure that the film / stripper residue is collected and that no waste material enters the drainage system.
11. Remove remaining adhesive residue with a rivet brush.
12. Clean the entire surface with a solvent wipe, followed by a wash with detergent and water. Dry the surface.
13. Failure to properly wash and remove all excess adhesive remover will adversely affect the adhesion of new markings applied to the surface.

Disposal of Waste

Incineration in a permitted hazardous waste facility capable of meeting application regulatory requirements for destruction and removal is preferred. Otherwise, dispose in accordance with all applicable regulations

Drying Time Requirements for the 3M Graphic Remover System

Temp. °C	Temp. °F	Approx. Drying Time
27°	80°	15-20 minutes
21°	70°	15-20 minutes
16°	60°	15-30 minutes
10°	50°	30 minutes or longer

Troubleshooting

Condition	Possible Cause	Corrective Steps
Film Remover not Adhering to Marking	Marking not washed prior to Film Remover application Marking not dry before Film Remover was applied Marking was too hot or too cold when Film Remover was applied	Strip loose Film Remover and, after cleaning the surface, reapply remover Strip loose Film Remover and reapply after drying surface Strip loose Film Remover and reapply at a more moderate temperature
Excessive film breakage	Insufficient drying time causes film to be weak and soft Insufficient coating thickness of Film Remover Ambient temperature too low Extremely old or degraded film	Allow additional drying time for film to toughen Apply additional coat of Film Remover. Begin removal within 1 hour Move to heated area, 10°C (50°F) or above Apply additional coats of Film Remover
Excessive adhesive residue after film removal	Insufficient time for Film Remover to dry Poor bond between vinyl film and adhesive Excessive coating thickness of Film Remover (Puckered Film)	Allow additional drying time No cure. Strip film and remove adhesive with Adhesive Remover Apply a thinner coat of Film Remover
Film will not remove from surface	Insufficient time for Film Remover to dry Insufficient coating thickness of Film Remover Ambient temperature too low	Allow additional drying time Apply an additional coat of Film Remover Move to heated area, 10°C (50°F) or above

Warranty

Only a Scotchprint® Graphics Authorised Manufacturer or 3M™ MCS™ Qualified Manufacturer can produce 3M™ MCS™ Warranted Graphics. The warranty period is based on field experience and exposure tests. When the graphics are processed and used according to the 3M recommendations, they should have the performance life shown in the table below. The actual performance depends on the:

- Correct combination of film and ink
- Ink formulation
- Drying methods
- Selection and preparation of the substrate
- Application methods
- Exposure conditions
- Cleaning methods

Shelf Life

The shelf life of the film is 2 years and should be applied within 2 years of the receipt of film if unprocessed. Processed film should be applied within 1 year of processing and within 2 years of receipt of the film.

Glossary of Terms

Matched Component System™ or MCS™

The system pursuant to which Finished Graphics are produced by a Graphic Manufacturer using only 3M Products and components and manufactured in accordance with 3M's Product or Instruction Bulletins, 3M Specification Document and using 3M Approved Technologies.

3M™ Controltac™ Plus

A film with 3M™ Controltac™ Plus positionable adhesive system has million of precision-placed microscopic glass spheres embedded within its adhesive layer. These spheres help to prevent the adhesive from fully contacting the application surface until pressure is applied. This enables the graphic to be positioned, then re-positioned as many times as necessary, until it is in exactly the right place before final application.

3M™ Comply™ Performance

With its remarkable 'bubble and wrinkle free' application feature, 3M™ Comply™ Performance is the next step in speeding and easing graphic application. The adhesive layer has been developed to contain uniquely-configured channels which allow air to escape during application.

Permanent Adhesive

Films with a permanent adhesive can be difficult to remove and will often require heat and/or chemicals for effective removal.

Removable Adhesive

Films with removable adhesive can be lifted easily from most suitable substrates and may require the application of heat to add the process.

Changeable Adhesive

Films with a changeable adhesive are possible to remove without the use of heat or chemicals.

Health & Safety

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Important Notice to Purchaser

The 3M products described in this publication are covered by a 3M warranty and limitation of liability.

3M's warranty provides that if 3M finds that goods are defective in material or workmanship they will be replaced or the price refunded at 3M's option but note that 3M does not accept liability for other direct losses (except for personal injury or death) or consequential losses relating to defective products or from information supplied by 3M.

Purchasers and users of 3M products, and not 3M supplying companies, are always solely responsible for deciding on the suitability of the 3M product for their required or intended use.

Technical Assistance

For help on specific questions relating to 3M Commercial Graphics Division Products, contact your local Technical Service Representative.

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