

## 3M Laminates applied on vehicles—Maintenance.

- To wash these laminates, use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11 (neither strongly acidic nor strongly alkaline).
- 2. Power washing, or pressure washing is discouraged as aggressive washing can damage the laminate by forcing water underneath the laminate. Water lessens the adhesion of the laminate to the substrate allowing the laminate to lift or curl. These problems are magnified by wind. This is a critical problem for perforate window graphic film. Also, the pressure may "cut" in the laminate edge causing issues over the operation of the vehicle. The vehicle user must verify the condition of the laminates after washing the vehicle and immediately repair any damage that may have occurred, as improperly repaired laminates may present a road safety hazard.

If you use water pressure nozzles:

- a) Use a wide-angle nozzle, at least 40°, with a protector (point protector).
- b) Do not exceed 2000 psi pressure.
- c) The water temperature must not exceed 180°F (82°C).
- d) Hold the nozzle at least 12" (300mm) away from and perpendicular (90° ± 10°) to the laminate.
- e) Do not direct the water stream at a sharp angle to the edge of the laminate.
- 3. In the case of automatic car washes equipped with a brush system, remember that:
  - a) Brushes can catch a loose edge of the graphic and cause further damage to the laminate.
  - b) Brushes can dull the finish of the laminate.

- 4. a) Flush the graphic with clean water to remove loose dirt particles. A trigger-type hose nozzle is convenient for this purpose.
  - Use a mild liquid detergent and water solution and wash the graphic with a soft brush, rag or sponge.
    - Wash thoroughly from the top down.
    - Avoid abrading the graphic by unnecessary scrubbing.
    - After applying the cleaning solution, keep a steady stream of water flowing on the graphic to wash away dirt particles.
  - c) Rinse the entire graphic thoroughly with clean water. Allow to dry naturally.
- 5. Some contaminants may remain after following the normal cleaning procedures. Most contaminants can be removed using one of these methods. Other cleaning products and methods should be used only on a customer test-and-approve basis.
  - a) To remove tar, oil, diesel smut or bituminous material:
    - Wipe with 3M<sup>™</sup> Citrus Base Cleaner or a rag dampened with kerosene, mineral spirits, heptane or VM&P naphtha. Do not use other solvents.
  - b) To remove pollen and fungus:
    - Wash the graphic with a 3%-5% sodium hypochlorite (full-strength household bleach) solution or mild liquid detergent and water.
    - Rinse with clean water immediately.

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Grease, oil, oily materials: Moisten a microfiber cloth with a small quantity of kerosene, petroleum or a similar mineral solvent. Do not use other solvents. After eliminating the soil, immediately wash the surfaces of the graphic/laminate with water and detergent (follow instructions in point 1) and rinse with large amounts of clean water.

Vegetable, mold and fungal stains: Clean the graphics/laminates with a 3%-5% sodium hypochlorite (full-strength household bleach) solution or mild liquid detergent and water. Then, rinse with large amounts of clean water.

To remove crayon, lipstick or similar materials: Select an appropriate solvent and test it in an inconspicuous area to ensure it removes the contaminant without damaging the graphic. This must be done on a customer test and approve basis. Wash immediately with mild liquid detergent and water, then rinse with clean water.

