# Removal Instructions for Avery Dennison<sup>™</sup> Cast, Calendered, Reflective and Polyester Films

Instructional Bulletin #4.10 (Revision 7)

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# 1.0 Scope

Avery Dennison™ marking films with permanent adhesives have been designed for use in manufacturing high quality architectural, fleet and promotional decals and markings. Should removal of markings with permanent adhesive be required, differences in film characteristics (e.g., cast vs. polyester) and the substrate surface (e.g., painted vs. unpainted) will combine to make each removal slightly different. The purpose of these instructions is to provide a general removal method useful in many removal situations. Always test a small area before commencing decal removal to ensure that the substrate will not be damaged.

# 2.0 Suggested Removal Tools

- Weed Burner, propane torch, heat gun, or other source of concentrated heat
- Knife
- Razor Blade
- Putty Knife
- Cleaning Solvent

### 3.0 Cold Pull Method

In many instances, it is merely a matter of picking or lifting an edge of an applied decal and pulling to remove the entire decal. This can be achieved with the use of a fingernail, putty knife, knife, or razor blade. Once an edge has been lifted, grasp the decal with your hand and pull the decal away from the substrate. Minimizing the degree of the pull angle will reduce the potential for adhesive transfer--typically less than a 45° angle will meet this requirement. However, success can be achieved at greater than 45° angles, but adhesive residue may be present.

When the temperature is below 50°F (10°C) there may be instances where difficulty in removal is encountered. Such difficulty could cause tearing of the decal to be removed or excessive adhesive residue. When these situations arise, the Heat Method (below) is recommended.

# 4.0 Heat Method

With a weed burner, heat entire decal by holding heat source approximately 6 to 12 inches (15 - 30cm) away from surface. After heating entire decal for approximately 30-60 seconds, loosen a corner of the decal and pull marking back slowly. A slow, steady pulling and lifting action at less than 90° angle will usually prevent films from breaking and will remove most of the adhesive from the substrate. If decal becomes hard to pull, stop, reheat decal, and proceed with removal.

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Adhesive residue may be removed by wiping with a clean saturated rag of XXL1000 decal remover, heptane, Xylene, and/or mixture of 75% MEK/25% Toluene or by using one of the adhesive remover listed in Section 6.

NOTE: Non-hazardous citrus based removers such as, Rapid Tac adhesive remover are available.

### 5.0 Chemical Method

### XXL1000

Avery Dennison™ recommends XXL1000 decal remover (to order, call 847-392-3980). XXL1000 is an environmentally safe, non-toxic, non-flammable decal remover that will minimize the time required to remove decals. Some important instructions regarding XXL1000 decal remover are:

- Apply XXL1000 with spray dispenser. Wait approximately 10-15 minutes until vinyl begins to bubble.
- 2. Peel vinyl from surface.
- 3. If vinyl does not remove easily from surface try the following steps:
  - a) Use a hot water pressure washer to separate the vinyl from the surface. A minimum pressure of 2500 psi (175 Kg/cm2) is required. The minimum pressure washer temperature is 165° F(74°C).
  - b) Allow the XXL1000 solution to remain on the graphic for up to 24 hours. After 24 hours, repeat Step 2, or Step 3a.
- 4. If adhesive remains after Step 3, apply more XXL1000 and wait at least 15 seconds.
- 5. Use a pressure washer to remove adhesive with a top-to-bottom, side-to-side motion. Keep the water stream narrow and the wand 2 feet from the surface with a minimum pressure of 2500 psi. Or use a squeegee to wipe off the excess adhesive.

# Vinyl Off

Avery Dennison<sup>™</sup> recommends Vinyl Off decal remover (to order, call 770-643-8501). Vinyl Off is an environmentally safe, non-toxic, non-flammable decal remover that will minimize the time required to remove decals. Some important instructions regarding Vinyl Off decal remover are:

- 1. Apply Vinyl Off 10-4with spray dispenser. Best results occur when the surface is warmed by the sun, or other method. Wait approximately 1 minute. (some products may require additional time like calendared, or laminated graphics, Reflective films, and some laminated products may require heat and scuffing with sandpaper prior to application)
- 2. Peel vinyl from surface at approximately a 35° angle.
- 3. If vinyl does not remove easily from surface, a hot water pressure washer can be used to separate the vinyl from the surface. A minimum pressure of 2500 psi (175 Kg/cm2) is required. The minimum temperature of pressure washer is 165°F (74°C).
- 4. If adhesive remains after Step 3, apply Adhesive Off and wait at least 15 seconds.
- Use a pressure washer to remove adhesive with a top-to-bottom, side-to-side motion. Keep the water stream narrow and the wand 2 feet from the surface with a minimum pressure of 2500 psi.
- 6. OR wipe off with a paper towel, or scrape off with a squeegee.

Notes: When using Vinyl Off, Extra Care is needed if used n failed paint, acrylics, polycarbonates, or other porous & or unstable surfaces.

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# 6.0 Chemical Removers - Availability

Rapid Remover – Adhesive Removal Formula The Rapid Tac Company 186 Combs Drive Merlin, OR 97532-9769

Tel: 541-474-1113 www.rapidtac.com

Vinyl Off & Adhesive Off Crystal Tek 1010 Windward Ridge Parkway Alpharetta, GA 30005 www.crystaltek.us

Other adhesive and film removers are available, and ALL chemicals should be tested on an inconspicuous area to ensure the chemicals do not harm the substrate.

### 7.0 Precautions

- Always test the suitability of the chosen chemical or solvent for the particular substrate surface. If any damage is visible, do not proceed with the removal.
- Solvents are flammable. Do not use or store solvents near heat, sparks, or open flames.
- Avoid prolonged breathing of solvent vapors. Work only in well-ventilated areas with sufficient air exchange to prevent vapor build-up. Avoid eye and skin contact.
- Follow all instructions and Safety Warnings on solvent and chemical containers.

Revisions have been italicized.

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