

Avery Dennison®

Application & Care for V-9700RR

Instructional Bulletin # 8.15
Issued: November 2014

Introduction

Avery Dennison® V-9700RR Series Conspicuity Tape is designed for railcars and locomotives for easy nighttime detection and recognition. It is a high quality, durable, microprismatic retroreflective material with a pressure sensitive adhesive. The single layer construction does not require edge sealing.

Safety and Handling

The use of any chemicals for cleaning should be done with caution. Refer to the manufacturers Material Safety Data Sheet and follow all instructions and guidelines.

Tools

It is recommended to use only Avery approved tools for use in Conspicuity Tape application. Squeegees, utility knife, rivet punch, soap and water, Isopropyl Alcohol (IPA), wire brush, clean towels.

Storage

Avery Dennison conspicuity tapes can be stored for one year from date of purchase at a temperature between 65-75°F (18-24°C) and a relative humidity between 45-55%. The Conspicuity Tape must be applied within this one year time frame. Rolls should be stored in their original packaging or suspended from a rod or pole through the core of the material.

Where to Apply

Please check for any changes to local, state or Federal regulations that are relevant to Conspicuity Tape markings. For railroad freight cars, tank cars, flat cars and locomotives exemplary standards include section 106 from 49 CFR Part 224. Vertical or horizontal applications are described, including illustrations. The type of application required is dependent on the type of car.

Application Temperature

Avery Dennison Conspicuity Tape should be applied between 32°F and 100°F (0°C and 38°C) to ensure adhesion. Both the air and vehicle surface temperature should be within this range during application. Watch out for condensation build up when bringing cold surfaces into a warm environment. It is recommended that applied Conspicuity Tape remain within this temperature range for at least 2 hours after application.

Surface Preparation

Note: All surfaces are considered contaminated and must be cleaned and then dried prior to application. Conspicuity Tape should be applied soon after cleaning in order to prevent dust accumulation on the application surface. Newly painted surfaces should be dried and cured according the manufacturer's instructions prior to Conspicuity Tape application.

1. Use a wire brush and/or paint scraper to remove any peeling paint, rust, burrs, debris, etc.
2. Wash surface with soap and water to remove dirt and grease. Rinse thoroughly with water.
3. Re-wash surface with isopropyl alcohol (IPA). Saturate a clean towel in solvent and wipe the entire application area. Immediately dry with a clean towel before the solvent dries. Repeat this process until no dirt transfers to the towel. Change towels frequently to prevent cross contamination.
4. Make sure the entire application area is dry prior to application. Watch out for areas around rivets, seams and hinges as these areas often trap water or moisture.

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Application Procedure

Note: Avery Dennison recommends leaving a 1/8" space between the Conspicuity Tape and raised or recessed objects such as weld joints, expansion joints, seams, large bolts or rivets, hinges and other hardware, in order to prevent edge lifting or wrinkling.

Note: V-9700RR is not suitable for flexible surfaces such as PVC curtains.

1. Clean the application surface as indicated above.
2. Remove the liner and tack the Conspicuity Tape in place using light finger pressure. Make sure hands are clean and avoid touching the adhesive side.
3. Apply firm pressure using a squeegee to the tacked down section of Conspicuity Tape. It is important to make sure all areas of the Conspicuity Tape are pressed down without trapping air bubbles. A variety of acceptable techniques are common. One recommendation is to squeegee from the middle outwards using overlapping brush strokes. Use of a squeegee with felt layer is recommended in order to prevent scratches on the face of the Conspicuity Tape.
4. For rivets, apply the tape directly over the top, creating a tent over the rivet head. Cut out the material over the rivet using a rivet punch that is slightly larger in diameter than the rivet head. Remove material over the rivet head and use a squeegee to press down the edges of the material around the rivet. Avoid applications on closely spaced rivets.
5. When applying over seams, cut the Conspicuity Tape with a utility knife. For larger seams, cut away 1/8" of the tape on each side of the seam.
6. When positioning adjacent pieces of Conspicuity Tape, butt them next to one another. Do not overlap the pieces.
7. Allow tape to remain undisturbed and at the recommended application temperature of 32-100°F for at least 2 hours after application.
8. Edge sealing is not required since Avery Dennison Conspicuity Tape is a single layer construction.

Cleaning

Note: Regular cleaning is recommended in order to remove dirt and ensure maximum performance for vehicle identification.

1. Avery Dennison Conspicuity Tape can be cleaned by hand with a sponge, cloth or other non-abrasive media using a mild detergent and water.
2. Avery Dennison Conspicuity Tape can also be pressure washed according to the following parameters.
 - Maximum Pressure: 1200PSI (80bar).
 - Maximum wash temperature: 140°F (60°C)
 - Water jets must be a minimum of 12 inches (30cm) from the Conspicuity Tape.
 - Spray water jets at an angle of 90° (+/- 45°) from the surface.
 - Cleaning solution should have a pH of 3-11. Follow dilution ratios of cleaning solutions per manufacturer recommendations.
 - Rinse thoroughly and do not allow cleaning solution to dwell longer than 60 seconds on or around the Conspicuity Tape.