2-Layer Stencil Preformed Thermoplastic Pavement Markings

APPLICATION INSTRUCTIONS

First-time applicators should contact Ennis-Flint, Inc. for product support and on-site training.

SURFACE APPLICATION, GENERAL REQUIREMENTS:

Equipment:
• Ennis-Flint® 3000 EX Propane Torch, or equivalent, with pressure regulator and 25 ft. of hose
• Gas Powered Blower or Broom
• Chalk Sticks and Chalk Snap Line
• Adequate Supply of Propane
• Paint roller (for sealer applications)
• Leather/heat resistant gloves

Moisture: Pavement must be dry prior to positioning the PreMark® material or sealer application (if required). PreMark® material cannot be applied to a wet surface or during precipitation. Once precipitation has stopped, ensure surface has dried thoroughly and moisture removed. On concrete, Ennis-Flint recommends waiting 24 hours after precipitation has stopped.

Surface: Surface must be free of dirt, dust, salt, deicing agents, chemicals and significant oily substances. PreMark® material can be applied on asphalt, portland cement concrete (in conjunction with recommended sealer), and new or old thermoplastic. Portland cement concrete must be free of all curing compounds. When applying on old thermoplastic scrape off any loose material and remove the oxidized (powdery) layer by grinding the surface or heating the surface and scraping off the oxidized layer to expose fresh material. Do not apply on top of paint or cold plastic.

Material: PreMark® 2-layer stencil markings consist of a solid base layer and a top layer usually of a contrasting color. Keep PreMark® material dry all times. Avoid extreme storage temperatures. PreMark® material should be stored indoors at temperatures between 35° F. and 90° F. Packages should be stored flat and stacked a maximum of 25 high. PreMark® should be handled with care in temperatures below 50° F as it will be less flexible in colder weather. Shelf life is 24 months. Ennis-Flint® Low VOC Sealer should be used for applications on non-bituminous pavements.

Sealer: Ennis-Flint® Low VOC Sealer ("the Sealer") is required for markings on portland cement concrete and other non-bituminous surfaces where the marking is at street level and would be subjected to vehicular traffic. The Sealer is supplied in 1-gallon and 5-gallon pails. Expiration date for the sealer will be stamped on the container label.

Temperature: PreMark® material does not have any minimum road or ambient temperature requirements.

SAFETY PRECAUTIONS:

Protective clothing, consisting of leather work shoes, long pants, gloves, safety goggles, and a safety vest should be worn. Avoid all contact with the molten SuperBundy® material and propane torch flame. If you get molten material on your skin, flush the area immediately with plenty of water then seek medical attention. Do not attempt to pull the molten material off your skin. If accidental contact occurs, wash contaminated skin with soap and water and remove contaminated clothes immediately. If accidental contact with the eyes occurs, immediately flush eyes with plenty of water for at least 15 minutes; remove contact lenses; call a physician.

Equipment such as the Ennis-Flint® 3000 EX or Magnum® heat torch operate on vaporized propane gas. Use the largest size cylinder possible. The propane cylinders must be used in the upright position with the valve being the uppermost part. Never lay the cylinder down on its side. This will allow liquid gas to flow into the torch and is not recommended. Do not use the torch if the propane cylinder is not in the upright position.

INSTRUCTIONS FOR APPLICATION ON ASPHALT, OR FOR APPLICATION ON NON-BITUMINOUS SURFACES WHERE THE MARKING IS NOT SUBJECTED TO VEHICULAR TRAFFIC:

1. Clean intended application area thoroughly. All loose particles, sand, dust, etc. must be removed. Utilize a power blower or compressed air if available, otherwise sweep completely.

2. Mark the area to receive the PreMark® material using a chalk line, chalk or crayon. When tracing always handle the material with care.

3. Ensure that no moisture is present prior to positioning the PreMark® material on the pavement surface. Surface moisture is not often visible so you should assume that some moisture is present. Remove moisture by drying the application area with a propane fueled torch.
4. Position the base layer on the pavement surface. If the base layer consists of multiple pieces, ensure that there are no gaps between the adjoining segments. You may overlap the edges slightly. Check to ensure that proper layout and alignment is obtained before heating the material. Prepare to heat the PreMark® material by positioning yourself with the wind at your back as you face the marking. This will allow the wind to move the heat over the unheated portion of the material while keeping the heat away from your feet. Regularly-spaced heat indicators (indents) have been manufactured into the top surface of the PreMark® material. The closing of these indents will provide a visual cue that the material has reached a molten state. The PreMark® material must be heated to its melting temperature to achieve a bond with the pavement. Insufficient heat will result in inadequate bonding and failure.

5. Heat the PreMark® material by moving the flame from heat torch in a sweeping motion, approximately 2 feet wide. Heat slowly, but steadily keeping the nozzle of the torch about 4 to 8 inches above the material. Maintain a minimum distance of 4 inches between the torch nozzle and the material. Any closer will cause superficial scorching of the material without adequate melting throughout. Continue to heat the PreMark® material until the indents close. **Note: the base layer must be fully heated before applying the top layer.** Attempts to reheat the marking after the top layer has been applied and heated will be unsuccessful.

6. **Caution:** Leather gloves or other heat resistant gloves should be worn while positioning the top layer of material. Immediately after the base layer has been applied, carefully position the top layer onto the base layer. **Note: do not attempt to re-align the top layer once contact made with the base layer.**

7. Heat top layer following the instructions outlined in Step 5 with one important difference: **Stop heating when indents begin to close.** Heat stored in the base material will continue to “cook” the top layer and produce the desired bond. The closing of these indents will provide a visual cue that the material has reached a molten state and proper bead embedment has been achieved. **Note: If the top layer of your marking is a “Stencil design”, allowing portions of the base layer to show through, then it is important that you do not overheat the top layer as you will lose the detail in the “Stenciled design”.**

8. PreMark® material will cool and set rapidly within a couple of minutes of application. If desired, setting time can be accelerated with a spray of cool water.

**INSTRUCTIONS FOR APPLICATION ON NON-BITUMINOUS SURFACES WHERE MARKING IS SUBJECTED TO VEHICULAR TRAFFIC:**

1. Follow steps 1 through 3 as stated above. **Note: Worn, polished concrete should be ground or milled until the surface becomes rough.**

2. Apply the sealer to areas outlined in chalk or crayon. Allow it to dry until it will not transfer to your gloved finger when touched. the more porous the surface, the more sealer is required. **Caution: Do not attempt to speed up the drying process by using an open flame as the sealer is flammable at this stage.** Remember: It is important to cover the entire area with sealer where the PreMark® material will be applied.

3. Continue with Steps 4 through 8 as stated above until application is complete.

**NOTES:**

- Do not attempt to apply both base layer and top layer simultaneously. The base layer must be applied first before applying the top layer.
- Closed indents act as a post-application visual cue that proper application procedures have been followed.
- PreMark® material is compatible with asphalt and concrete surfaces and can be applied on special surfaces, i.e., bricks and cobble stones, using an approved sealer.
- You can "cut and paste" with PreMark® material. Use a knife to score the material and carefully break it along the score. In warm weather you can use scissors. Don’t throw or drop PreMark® material in lower temperatures as it will be less flexible in colder weather.
- Oil impervious PreMark® material can be applied immediately after completion of daily paving operations.
- Dispose of all materials in accordance with all applicable federal, state, and local laws and regulations.