



APPLICATION INSTRUCTIONS

DecoMark® Preformed Thermoplastic Logos and Horizontal Surface Signage

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



SURFACE APPLICATION, GENERAL REQUIREMENTS:

- Equipment:**
- Flint 2000EX™, Magnum Torch, or equivalent propane torch with regulator and 25 ft. of hose
 - Sealer gun: 75/150 or 300/600 ml
 - Gas Powered Blower or Broom
 - Adequate Supply of Propane
 - Crayon, Chalk Sticks and Chalk Snap Line
 - Tape Measure
 - Utility Knife, Putty Knife
 - Hammer and Chisel
 - Water sprayer (Optional)
- Moisture:** Pavement must be dry prior to positioning the DecoMark® material.
- Surface:** DecoMark® can be applied on asphalt, or non-bituminous portland cement concrete surfaces. Surface must be free of dirt, dust, deicing agents, chemicals and significant oily substances. Concrete surfaces must have surface porosity. To test for porosity sprinkle a few drops of water onto the surface. If the concrete does not readily absorb the water drops, the surface is not sufficiently porous and you should contact your Flint Trading representative for additional instructions on how to prepare the surface.
- Material:** Keep material dry. Avoid extreme temperatures. Store indoors at temperatures between 35° F - 90° F. Packages should be stored flat and stacked a maximum of 25 high. Handle with care in temperatures below 50° F, as material will be less flexible. Shelf life is 12 months for DecoMark® material. Prior to starting the application, place all tools and materials where they are going to be needed in the application process.
- Sealer:** DecoMark® Sealer is required for all applications. The sealer is supplied in a 300/600 ml cartridge at a ratio of 2 parts A to 1 part B. A kit consists of 2 sets of A/B cartridges and will cover up to 90 sq. ft. per kit. For smaller markings a 75/150 ml kit is available which consists of 1 set of the 75/150 ml A/B cartridge and will cover up to 10 sq. ft. Match the proper size sealer gun to the sealer kit you are using. Shelf life is 12 months for DecoMark® Sealer.
- Temperature:** Ambient and surface temperature must be 45°F and rising.

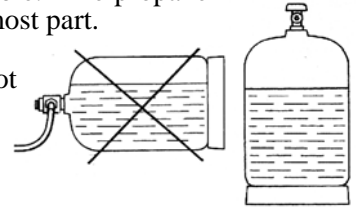
SAFETY PRECAUTIONS:

Read the enclosed Material Safety Data Sheet prior to application. The sealer is for outdoor use only. Protective clothing consisting of leather work shoes, and long pants, should be worn. Always wear safety glasses and nitrile gloves (supplied), or other non-absorbent gloves, when working with the sealer. Always point the tip of the cartridge in a direction where an accidental discharge will not contact personnel at the site. In the unlikely event of sealer contacting skin, remove contaminated clothing, and wash the affected area with soap and water for at least 15 minutes. Destroy any contaminated leather. Seek medical attention if irritation persists. **Do not discard cartridges with unused sealer.** Any unused sealer can be discharged through the mixing nozzle onto the aluminum tray provided. Cured sealer can safely be disposed of. **Dispose of all materials in accordance with all**

applicable federal, state and local laws and regulations. Do not let mixed sealer puddle as intense heat will develop during curing. Avoid all contact with the hot DecoMark® material and heat gun flame. If you do get some molten DecoMark® material on your skin, flush the area immediately with plenty of water and then seek medical attention. Do not attempt to remove the molten material from your skin.

The Flint 2000 EX operates on vaporized propane gas. Use the largest size cylinder possible. The propane gas cylinders must be used in the standing, upright position with the valve being the uppermost part.

Never lay the cylinder down. 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:

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. *See Figure 1*
2. Mark the area to receive the DecoMark® using a chalk line, chalk or crayon. *See Figure 2*. When tracing always handle the material with care. The DecoMark® material consists of a pattern of interconnected individual pieces of preformed thermoplastic material. Do not lift an entire pattern segment (usually 2 ft. x 3 ft.) by holding on to a small individual piece of the pattern only. The material should be handled on the plastic sheet it is packed with until it is close to its final position. *See Figure 3*. Once the marking has been traced, or the area chalked, remove the marking from the pavement.
3. Ensure that no moisture is present prior to positioning the material. Surface moisture is not often visible on the pavement so you should assume that it is present. Remove moisture by drying the application area with a propane fueled torch such as the Flint 2000EX™ or Magnum Heat Torch. *See Figure 4*.
4. Remove the contents of the sealer kit from the shipping carton. Install the sealer cartridges into the sealer gun. Point the gun upwards (nose up), and remove the nose plug. *See Figure 5*. With the gun still pointing upwards, mount the mixing nozzle and ensure that it is properly secured to the sealer cartridge. *See Figure 6*. Point the gun downward and squeeze the handle gently until the sealer is approximately 2 in. from the tip of the mixing nozzle. If circumstances do not permit the mixed sealer to be used within 10 minutes remove the mixing nozzle and insert a new nose plug.
5. The amount of sealer in a 300/600 ml cartridge will be sufficient for applying 45 sq. ft. of DecoMark®. The 75/150 ml cartridge will cover 10 sq. ft. **Note: It is critical that the sealer does not cure up before the DecoMark® material has been applied and heated, therefore do not apply sealer to an area larger than what can be heated in 20 minutes.** Holding the tip of the nozzle above the application area, squeeze out an appropriate amount of sealer. *See Figure 7*. Using the roller provided spread out the applied sealer over the selected application area. *See Figure 8*. Do not apply sealer outside the chalk line. The sealer should appear as a light coat of paint, leaving a shiny surface. **Do not wait for the sealer to cure up before applying the DecoMark® material.**
6. Cold temperature considerations: DecoMark® Sealer may dispense more slowly in temperatures around 45° F. When working in these temperatures we suggest the DecoMark® Sealer be kept close to room temperature whenever possible.
7. Apply the DecoMark® material with the ViziGrip® surface facing up as soon as the sealer has been applied, following the handling procedure in Step 2. The ViziGrip® surface is a unique feature of DecoMark® that combines skid-resistant elements and surface beads which enhance traction and nighttime visibility. Position material so that edges of adjacent sheets fit snugly together and that the pattern of the marking aligns properly from sheet to sheet. *See Figure 9*.
8. Prepare to heat the DecoMark® 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 at the same time keeping the heat away from your feet. Regularly spaced heat indicators, indents, have been manufactured into the top surface of the DecoMark® material. The closing of these indents will provide a visual cue during application that the material has reached a molten state and proper embedment of the top coating of beads and skid-resistant elements has been achieved. The DecoMark® material must be heated to its melting temperature to achieve a bond with the pavement. **Insufficient heat will result in inadequate bonding and failure.**

9. Immediately after positioning the DecoMark® begin heating it by moving the flame from a propane fueled torch, such as the Flint 2000EX™, or Magnum, slowly, but steadily over the material. *See Figure 10.* If using the Flint 2000EX™ move the torch in a sweeping motion, approximately 2 ft. wide, over the material at a height of 4 - 8 in. so that heat is evenly applied to the material and it begins to melt. If using a torch similar to the Magnum the applicator should utilize the pre-set pilot valve setting (do not squeeze the handle) to get an orange tipped flame to heat the material. Move the Magnum torch in a sweeping motion approximately 2 ft. wide over the material at a height of no less than 6 in. Alternatively, the Magnum can be used at high power by squeezing the handle to produce maximum output. At this setting it is essential to move the torch quickly over the material while maintaining a minimum height of 18 - 24 in. above the material. Always maintain proper minimum height above the material when heating otherwise superficial scorching will result without adequate melting throughout. If material is splattering with introduction of the torch, the flame is too close, or the torch output is too high. Step back and adjust torch height and/or intensity to eliminate the splattering.
 10. Continue to heat the DecoMark® until the heat indicators, indents, close. At this point stop the heating process. Overheating will sink the top coating of beads and skid-resistant elements making it necessary to hand-apply additional beads and skid-resistant elements, while the material is reheated and in a molten state. When applying multiple sections of DecoMark®, leave the 8 in. closest to the continuation edge unheated. Do not expose areas with sealer (and no DecoMark® material) to the flame of the torch as this will cause the sealer to cure prematurely.
 11. Inspect the recently applied DecoMark® to ensure that complete bonding has occurred over the entire area. After the DecoMark® has cooled to near ambient temperature use a putty knife or chisel and attempt to remove a portion of the DecoMark® material along an edge. Edges should be rounded and thoroughly bonded. If properly installed, the material should pull away from itself, leaving a residual film on the surface. If the material does not pull away from the surface without any material remaining on the substrate, reposition the material and reheat that portion of the marking. While trying to lift the recently applied material off of the surface adequate bonding has occurred if the DecoMark® material separates and part of it remains stuck to the pavement. Depending upon the condition of the surface some asphalt or concrete may also be pulled up on the underside of the DecoMark® material. Once the bond has been verified, use the DecoMark® Sealer to re-bond the piece of material you sampled back onto the surface. When applied correctly the DecoMark® should appear as one continuous marking. All seams should be closed. There should be no gaps between adjacent colors, and no gaps between adjacent segments. Do not begin applying the next row of DecoMark® material until a sufficient bond has been established. While material can be reheated to achieve adequate bond at the time of installation, attempts to reheat material the following day will be unsuccessful.
- Note: Material will not bond with the pavement until the sealer cures. Since the sealer will take longer to cure in cooler temperatures, (45°F - 55°F), you should allow for more time to elapse before checking bond (than you normally would when applying in warmer temperatures). You can apply more heat to the material to facilitate the curing of the sealer, but not beyond the point where you risk sinking all the surface treatment. Thereafter, you can check the bond at 15 minute intervals. Sealer should cure within an hour at the temperature range noted above.

12. Repeat steps 1 through 11 until the DecoMark® material has been applied to the entire application area.

DecoMark® Application Instructions

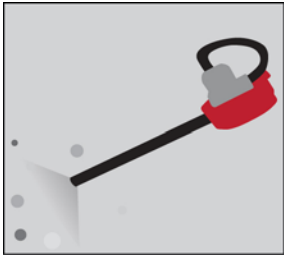
For applications on both asphalt and non-bituminous surfaces

(Use in conjunction with the full set of text instructions on previous pages of this document)

NOTES:

- Closed heat indicators, indents, act as a post-application visual cue that the application procedures have been followed.
- If the next DecoMark® Sealer application does not take place within 10 minutes of the last use of the sealer, remove the mixing nozzle and insert the nose plug. This should be done with the cartridge pointing downwards to remove the mixing nozzle and then immediately place the cartridge in an upright position and insert the nose plug while observing all safety instructions mentioned above. Secure the nose plug to the cartridge using the cap or retaining nut provided.
- DecoMark® is formulated with the ViziGrip® system. The ViziGrip® system is a unique feature that combines skid-resistant elements and beads, on the surface of the material, which enhance traction and nighttime visibility. If the top coating of skid-resistant elements and beads has completely sunk into the DecoMark® material during the application process, the material will not provide the desired initial skid resistance, nor nighttime visibility and additional skid-resistant elements, and surface beads should be hand-applied while the material is reheated and in a molten state.

- If DecoMark[®] is applied over joints (saw cut control joints, isolation/expansion joints, cold/construction joints), make a deep score in the material once it has set up but not entirely cooled down.
- Oil impervious DecoMark[®] can be applied immediately after completion of daily asphalt paving operations. DecoMark[®] can be applied to concrete as soon as it has set up (green concrete).
- You can "cut and paste" with DecoMark[®]. Use a knife to score the material and carefully break it along the score. In warm weather you can use scissors.
- Do not allow two pieces of DecoMark[®] to remain in direct contact with each other, as they will bond together especially in hot weather. Use the plastic separation sheets to avoid this situation.
- Do not throw or drop DecoMark[®] in lower temperatures, as it will be less flexible in colder weather.
- During application propane tanks will begin to freeze up as the supply of propane decreases. This will lower the gas pressure reaching your torch, creating less heat. Cold weather will accelerate this process. Use 40 lb. tank and have a spare on hand.
- Dispose of all materials in accordance with all applicable federal, state and local laws and regulations.



1: Clean Surface

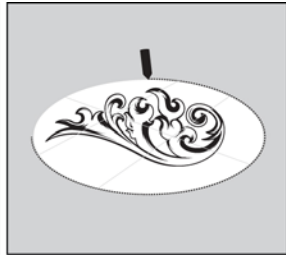


Figure 2: Mark area

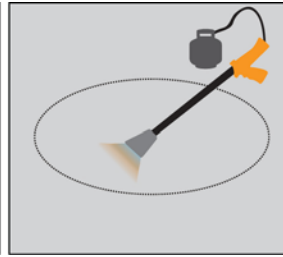


Figure 3: Remove moisture

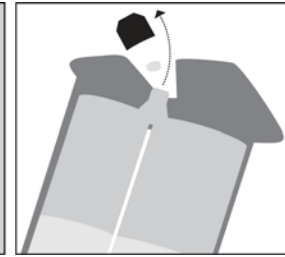


Figure 4: Remove nose plug

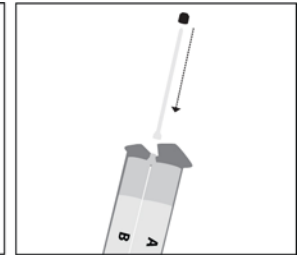


Figure 5: Attach nozzle

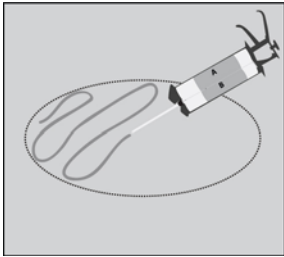


Figure 4: Apply sealer

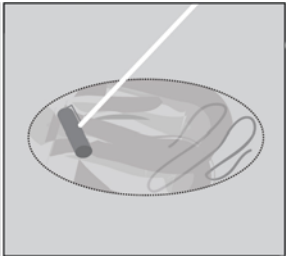


Figure 5: Roll sealer

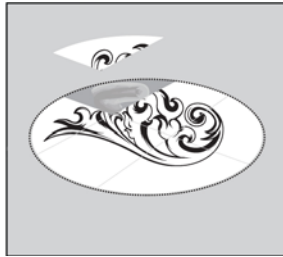


Figure 6: Layout material

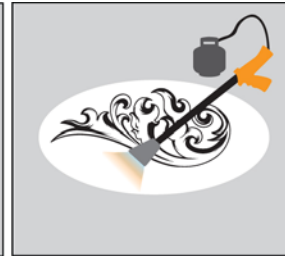


Figure 7: Heat material

DecoMark[®] Patent Pending
 DecoMark[®] has a patented visible indent system, US Pat 5,861,206

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