REFLECTEX®
Rapid Install System

INSTALLATION GUIDELINES
REFLECTEX® RAPRID INSTALL
CONCRETE PAVEMENT INTERLAYER SYSTEM

Thank you for purchasing REFLECTEX® Rapid Install by Propex Operating Company, LLC (Propex). This document provides installation guidelines for REFLECTEX Rapid Install as used as a concrete pavement interlayer system for unbonded concrete overlays on existing pavements. REFLEXTEX Rapid Install consists of:

- REFLECTEX Solar Reflective Concrete Pavement Interlayer Geotextile
- PROGRIP™ adhesive

While Propex has made every effort to ensure general validity, this information should not be used for a specific application without independent professional examination and verification of its suitability, applicability, and accuracy. The documentation provided herein is for general information only, and is intended to present installation guidance only. Project specific contract documents take precedence installation procedures are different than what is represented in this document. Work should be performed under the provisions set forth for the specific project.

WHAT IS REFLECTEX?

REFLECTEX is part of a family of needlepunched nonwoven geotextile products produced by Propex for separating cementitious pavement sections in unbounded concrete overlays. REFLECTEX and its sister product GEOTEX® 1341NH are resistant to ultraviolet degradation and to biological and chemical environments normally found in soils. Their fibers are needled to form a stable network that retains dimensional stability relative to each other.

As concrete interlayers, REFLECTEX and GEOTEX 1341NH provide cushion and drainage between an existing pavement layer and a concrete overlay. They also prevent bonding between the new overlay and the existing pavement below. REFLECTEX, however, is engineered with a proprietary solar reflective additive in order to keep the fabric cool during construction. The typical black coloration of geotextiles absorbs heat from the sun during installation causing the fabric to become hot to the touch. The unique design of REFLECTEX keeps it cool during hot installation days.

The success of these concrete interlayers is dependent on proper installation. This guide is intended to lay out the proper techniques to install REFLECTEX correctly and safely. Because no guide can cover every installation challenge, an experienced representative is available through your Propex distributor to help with your special conditions.

CALL 1-800-621-1273 FOR THE PROPEX DISTRIBUTOR NEAREST YOU.

STORAGE AND HANDLING

REFLECTEX should be stored somewhere where it is protected from water and UV from the sunlight and should be elevated off the ground during storage to keep the fabric dry and protect it from damage. REFLECTEX should be stored somewhere where it is protected from damage from humans or animals. The rolls of REFLEXTEX may be handled by either machinery or hand, depending on what is available on the job.

PROGRIP: **Frequent use of canister:** Leave the hose and gun assembly attached to the caniser, leave the canister value open to keep the hose and gun charged with adhesive and to prvent the adhesive from drying in the hose. Turn the trigger pull adjusting nut to the closed position when not in use. When ready to re-use, adjust the trigger pull adjusting nut as desired and begin spraying.
Regular gun and hose mainenance and cleaning is recommended for best performance. Celan the spray tip regularly to avoid excessive adhesive build-up. The use of metallic objects to clean the tip is not recommened as this will cause damage to the tip and create an irregular spray pattern
Canister storage/Change Over: If the caniser is to be left for two weeks or longer without spraying, turn the canister valve completely off and dispense all material in the hose and gun assembly. Once empty and no pressure is present when the spray

gun trigger is depressed, slowly disconnect the hose from the canister. Protect adjeacent surface from any material that may drip from the hose. The hose and spray gun may be cleaned by flusing with a small amount of cleaner to prvent any residual ahesive from plugging it.

BEFORE INSTALLATION BEGINS

- *Coordinate with a Propex Representative:* A pre-construction meeting with the construction team and a representative from Propex is recommended prior to installation. This meeting should be scheduled by the contractor with at least a two week notice prior to construction.

- *Gather the Tools Needed:* Tools that you will need for REFLECTEX Rapid Install include the REFLECTEX geotextile, PROGRIP adhesive and hose with spray gun. A rolling cart or hand truck can be used to easily transport the adhesive canister along the pavement.

SITE PREPARATION

Prior to installation of REFLECTEX Rapid Install, perpare the existing surface by patching any potholes or excessively disturbed areas and filling any large cracks or spalled areas. Smooth the surface by filling any large dips or rutting. Sweep the surface clean before placing REFLECTEX. Excessive debris may damage the fabric during installation and service. Assemble adhesive nozzle spray gun and canister using a wrench to tighten all connections.

FABRIC PLACEMENT OVERVIEW

- REFLECTEX should be stored according to the storing and handling instructions until placement.

- REFLECTEX may be transported from storage to placement by machine.

- Placement of the geotextile can be achieved by rolling out the fabric by hand or machine.

- REFLECTEX should be placed no more than five days before the paving process. Prolonged exposure to the elements may cause damage to the fabric.

- REFLECTEX may be dampened, but not soaked, during installation minimizing concrete bleed through.

- If vehicle traffic is present on the road or slow paving is expected, REFLECTEX should be placed no more than 650 ft (200 m) before the paving process.

- If traffic is expected on the fabric, tight turns and sudden braking and acceleration should be avoided. As this could damage or disturb the placed fabric.

- If REFLECTEX is being placed through an intersection or other area of higher traffic volume, the fabric should be placed immediately before the paving process. This eliminates damage due to the heavy traffic directly on the fabric.

- Adjacent panels of REFLECTEX should maintain an overlap of 6-10 in (15-25 cm). No overlap should exceed three layers thick.

- Overlaps should be directed away from the direction of paving to reduce the chance of disruption or damaging the fabric during the paving process.

- The free edges of the REFLECTEX panels should extend at least 6 in (15 cm) into a designed drainage area.

- REFLECTEX panels should be fixed into place with PROGRIP adhesive. If nails are selected as means of securement, they sold be placed on 6 ft (2 m) centers max and should be driven through 2-3 in (5 – 7.5 cm) galvanized washers.

FASTENER EVALUATION

PROGRIP ADHESIVE

1. For unbonded concrete overlay applications, the adhesive should be applied to the existing pavement or leveling course in front of the installation/placement of the REFLECTEX.

2. The adhesive should be applied continuously around the perimeter of each REFLECTEX geotextile roll/panel with a desired spray width of approximately 6 in (15 cm), or as specified.

3. The adhesive should be applied to the REFLECTEX overlay fabric (one side) for all roll/panel overlaps and butt joints with a desired spray width of 6-8 in (15-20 cm), or as specified.

4. Under normal conditions , one 30 lb canister of adhesive will allow for a minimum of 600 linear feetof installation.

SECURING NAILS

1. All nail lengths shall be verified for the type of existing pavement before installation begins. Normally 0.75 in (2 cm) nails for PCC existing pavements and 1.25 in (4 cm) nails for asphalt or Cement Treated Base (CTB) existing substructures.

2. Fastening guns and nails should be tested on the existing pavement prior to fabric installation to ensure the nails can be driven to their full depth.

3. After evaluation, choose the fastener device that provides enough power to drive the select nail into the existing pavement on a consistent basis.

4. Each nail is to be accompanied with a 2-3 in (5-8 cm) diameter galvanized washer to prevent pull through.

5. If during installation of the concrete interlayer geotextile, the nail does not fully penetrate the existing pavement, drive another nail and washer next it.

ADHESIVE APPLICATION

1. Slowly open the cylinder valve and inspect the connections for leaks and tighten if necessary.

2. Once the connection is inspected, open the valve fully.

3. Unscrew/unlock the applicator trigger and spay a test pattern to determine the best distance from the surface required to achieve the desired spray width. Adjust/open the applicator spray flare fitting until the spray pattern is wide enough to achieve the desired width.

4. Hold the spray nozzle so the tip is perpendicular to the ground, with the tip three to six inches from the ground. Apply a single, continuous coat of the adhesive in front of the installation of the overlay fabric at a pace of approximately six inches per second or as necessary to achieve the desired spray width.

5. Allow the adhesive to dry properly before bonding. Dry time can vary depending on temperature, humidity and coat weight. Typical dry time is 1 to 5 minutes. To check for dryness, use the back of your fingers and press into the adhesive and lift up. Any adhesive transfer or legginess indicates that the adhesive requires more time to dry. If the

adhesive feels tacky, but there is no transfer or legginess, the adhesive is ready for bonding.

6. The adhesive should be covered with the overlay fabric within one hour of application. Position the overlay fabric carefully as a strong bond is made instantly upon contact.

7. Once the adhesive is dry, install the overlay fabric taught over the adhesive without wrinkles and apply uniform pressure over the entire bonded area with a minimum recommended pressure of 25 psi (6.89 kPa). On large projects, a small drum roller is the preferred method for applying uniform pressure.

8. Once the overlay fabric is bonded to the adhesive, it can be covered immediately with the concrete overlay.

FABRIC PLACEMENT

1. Begin placement at the starting end of the project making sure to apply PROGRIP adhesive as described above.

2. Unroll REFLECTEX roll down length of project either by hand or machine. Besure to position REFLECTEX carefully as a strong bond is made instantly upon contact with PROGRIP.

3. Additional REFLECTEX panels may be required to cover the width of the pavement. Overlapping should not exceed 3 layers thick; therefore every other initial REFLECTEX panel should should be offset by 6-8 ft (1.8-2.4 m) until entire width of pavement is covered. This will ensure proper shingling of the REFLECTEX panels while preventing excessive layers at the corners.

4. Place adjacent REFLECTEX roll at the starting end of the project, overlapping the adjacent roll edge by 6 in (15 cm) min.

5. Secure the adjacent REFLECTEX roll with PROGRIP adhesive down length of project making sure to maintain a 6 in (15 cm) min. overlap with adjacent roll.

6. Repeat Steps 1 through 5 until entire width of project is covered.

7. Place REFLECTEX rolls at the terminal end of the previous REFLECTEX panel. Roll may need to be offset to avoid an overlap greater than 3 panels at the corners.

8. Make sure roll end overlap is shingled in the direction of paving. Secure end overlap with PROGRIP adhesive.

9. Make sure to allow at least 6 inches of REFLECTEX to extend beyond both edges of the new concrete pavement. The REFLECTEX geotextile is designed to channel water through pavement. The six inch tail on the outside of the pavement allows for overlap bonding and may be connected to a drainage system to funnel water away from the pavement.

CONCRETE OVERLAY PLACEMENT

Concrete overlay should be placed directly on top of the placed REFLECTEX. Care should be taken not to disturb the REFLECTEX when trucks dump into the paving apparatus or on the fabric itself. Trucks should release the emergency parking break or release the break when dumping into the paver to prevent damage to the geotextile. Trucks should avoid sharp turns, hard breaking, and quick acceleration at all times. Overlay should be placed according to the project plans.