Vulkem® Pedestrian Traffic Deck Coating System

Recommended Maintenance Procedures for Vulkem Urethane Coating Systems

GENERAL

1. Maintenance of a semi-annual program of THE VULKEM PEDESTRIAN TRAFFIC DECK COATING SYSTEM will assure that the coating system will continue to provide the service for which it was intended.
2. Maintenance procedures should include:
    a. Periodic physical inspections
    b. Cleaning
    c. Snow removal and ice control (where applicable)
    d. Repairs to deck coating system and periodic replacement of top coat
    e. Repairs to structure

INSPECTIONS

1. The deck coating system is subject to extreme abrasive conditions as well as to physical damage from general use and damage resulting from structural problems. Semi-annual inspections will provide a basis for the proper maintenance work to assure a long life expectancy of the coating system.
2. Monthly – Make a physical inspection to determine if there are any areas of excessive wear or physical damage to the coating.
3. Semi-annually – make a thorough physical inspection. Such inspections should include (but are not limited to):
    a. Inspect the sealant in joints for proper adhesion. Also determine if there is any cohesive failure or physical damage to the sealant from traffic.
    b. Inspect the underside of the joints for evidence of leaks where possible.
    c. Inspect drains or scuppers to assure there is nothing clogging or blocking them to avoid ponding water on the deck.
    d. Inspect coating surface to determine if there are any substantial structural cracks in the substrates which have caused the coating to crack.
    e. Inspect the areas where beams are resting on columns for evidence of stress cracking or excessive movement.
    f. Inspect the entire structure from the underside for cracks which show evidence of a difference in the plane of the materials on each side of the crack.
    g. Inspect area at juncture of horizontal and vertical sections (parapet walls, planter walls, building walls, etc.) to determine if there has been excessive movement at this point which may have caused the coating to crack.

CLEANING

1. The use and location of the deck will cause the cleaning frequency to vary. Our recommendation for cleaning is as follows:
    a. Weekly – Sweep or vacuum deck to remove all loose debris and dirt.
    b. Monthly – Thoroughly clean deck to remove dirt and debris. Cleaning may be by:
        i. Power scrubbing with low suds or biodegradable detergent. Detergent shall not be abrasive. When using power scrubbing equipment, the use of soft bristles is required. Thoroughly rinse to avoid becoming slippery when wet or stains from detergent residue.
        ii. High pressure water blast not greater than 1,000 psi at nozzle. When using this method, maintain at least a 24” distance from the surface, using a continuous back & forth motion.
        iii. Natural citrus peel cleaning products are recommended.
    c. Avoid the use of strong bases and acids or solvents.
    d. Diluted natural cleaning products are also recommended as a cleaner. Contact Tremco Technical Services prior to using any chemicals or detergents.

SNOW REMOVAL & ICE CONTROL

1. It should be recognized that piled snow can significantly load the deck surface beyond its design load capacity resulting in significant structural cracks and/or more serious structural damage. Therefore, immediate removal of piled snow is recommended.
2. The use of metal blades should be avoided at all times to prevent physical damage to the coating system.
3. Snow blowers (with rubber blades) and snow brooms are recommended, as opposed to heavy snow removal equipment.

4. Ice should be removed with chemical deicing materials. Acceptable deicing materials could include calcium chloride, potassium chloride or magnesium chloride. Sand, aggregate or rock salt is not an acceptable form of deicing.

REPAIRS TO STRUCTURE

1. All structural damage repairs should be at the direction of a structural engineer.

REPAIRS TO DECK COATING MATERIALS

1. Minor repairs may be made by owner's maintenance people, however, it is suggested that to protect the manufacturer's warranty, major repairs should be accompanied by the original approved applicator.
2. Physical damage to the coating system.
    a. Remove loose damaged coating materials to expose a sound substrate.
    b. Thoroughly clean exposed substrate and existing coating surrounding the area with a cloth which has been wet with an approved Tremco solvent.
    c. Allow an approved Tremco solvent to evaporate (1 hour at 75° F, 50% R.H.).
    d. Apply a Tremco approved primer at the specified thickness over the cleaned, existing coating that needs to be recoated. Follow the written application instructions of the Tremco approved primer for coverage, dry time and recoat time.
    e. Install the coating system to the original film thickness, extending each coat onto the existing coating, feather edging the terminating edge of the coating.
    f. Allow the repaired area to cure for 24 hours minimum before opening area to vehicular traffic.

ADHESION TESTING

Field adhesion tests are important to confirm the proper procedure for recoating an existing coating system.
If compatibility between two systems is ever a question, we recommend performing one of the following adhesion tests. It is more useful to conduct adhesion testing in the field than in the lab as it represents the actual job conditions.

- ASTM D4541: This test requires the use of an Elcometer and provides a "pull off" value.
- ASTM D903: Standard Test Method for Peel or Stripping of Adhesive Bonds. This test is also known as the "Adhesion in Peel" test and results in a quantitative value stated in lbs.

The surface is prepared as required. The primer is applied and allowed to cure. The coating is applied and a fiberglass cloth or similar fabric is worked in to the coating. The fabric is not to be placed "under" the coating. Allow a strip of the fabric, a minimum of 6" in length, to remain free of the coating. When coating has cured, generally after 7-10 days a spring scale is attached to the fabric and pulled 180°.

- Rag Test: This test gives an indication of bond with no value. It is typically the recommended procedure for field adhesion tests.

The surface is prepared as required. The primer is applied and allowed to cure. The coating is applied and a fiberglass cloth or similar fabric is worked into the coating. The fabric is not to be placed "under" the coating. Allow a strip of the fabric, a minimum of 6" in length, to remain free of the coating. When coating has cured, generally after 7-10 days, pull the free strip of fabric back towards the test area for indication of bond strength.

ADDITIONAL

In addition to these general maintenance and cleaning procedures, it should be noted that spills of petroleum distillates, hydrocarbon type solvents, lighter fluid, oil, gas and alcohols should be cleaned up as soon as possible to avoid damage to the deck coating. Also, hot coals from charcoal grills, along with cigarettes, must not be allowed to drop on the deck coating to prevent burns. Lawn furniture should have blunt tips or end caps to prevent puncturing the deck. Spiked golf shoes should also not be worn on the coated deck. Carpets, mats, and artificial turf should not be placed on top of the finished coating.

Tremco requires that any possible recoating job be reviewed and approved by your Sales and/or Technical Representative prior to installation.

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