



Guide Specification

Vehicular Traffic-Bearing Waterproofing

Auto-Gard

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide labor, materials, equipment and supervision necessary to install a fluid-applied, vehicular traffic deck coating system as outlined in this specification to new or existing concrete surfaces.
- B. The manufacturers application instructions for each product used are considered part of this specification and should be followed at all times.
- C. Related Sections:
 1. Expansion and Contraction Joints: Section 0315_____.
 2. Cast-in-Place Concrete: Section 0330_____.
 3. Sealants: Section 0790_____.

1.02 SYSTEM DESCRIPTION

- A. Auto-Gard shall be a complete system of compatible materials supplied by Neogard to create a seamless waterproof membrane.
- B. Auto-Gard shall be designated for application on the specific type of deck indicated on the drawings.

1.03 SUBMITTALS

- A. Product Data: Submit Neogard's product literature and installation instructions.
- B. Project Reference List: Submit list of projects as required by this specification.
- C. Samples: Submit samples of specified vehicular deck coating system. Samples shall be construed as examples of finished color and texture of the system only.
- D. Applicator Approval: Submit letter from manufacturer stating applicator is approved to install the vehicular deck coating system.
- E. Warranty: Submit copy of manufacturers standard warranty to cover a period of 5 years.

1.04 QUALITY ASSURANCE

- A. Supplier Qualifications: Auto-Gard, as supplied by Neogard, is approved for use on this project.
- B. Applicator Qualifications: Applicators shall be approved to install specified system.
- C. Requirements of Regulatory Agencies:
 1. The vehicular deck coating system shall be rated Class "A" by Underwriters Laboratories (ASTM E108/UL 790). Containers to bear Underwriters Laboratories labels.
 2. Materials used in the vehicular deck coating system shall meet Federal, State and local VOC regulations.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Delivery: Materials shall be delivered in original sealed containers, clearly marked with supplier's name, brand name and type of material.
- B. Storage and Handling: Recommended material storage temperature is 75°F. Handle products to avoid damage to container. Do not store for long periods in direct sunlight.

1.06 JOB CONDITIONS

- A. Environmental Conditions:
 1. Do not proceed with application of materials when deck temperature is less than 40°F.
 2. Do not apply materials unless surface to receive coating is clean and dry, or if precipitation is imminent.
- B. Safety and Health Conditions:
 1. During coating application, it is **essential** that maximum effort is made to protect the coating mechanic and others near the workplace from breathing vapors and coming in contact of material with skin or eyes.
 2. In confined areas, the best form of protection against organic solvents or other potentially sensitizing vapors is a **fresh air supply**. For maximum protection, it is recommended to use NIOSH/MSHA-approved, self-contained breathing apparatus with a full-face piece operated in a positive pressure mode.
 3. In unrestricted (open outdoor) areas, it is recommended to wear a suitable mask or respirator of a type approved by NIOSH/MSHA.
 4. To prevent excessive skin contact with the material, it is recommended to use fabric coveralls and neoprene or other resistant gloves. To prevent eye contact, wear a full-face mask or OSHA-approved protective goggles.
- C. Protection:
 1. Keep products away from heat, sparks, and flames. Do not allow use of spark producing equipment during application and until vapors are gone. Post "No Smoking" signs.
 2. The overspray and/or solvents from coatings can carry considerable distances and care should be taken to do the following:
 - a. Post warning signs a minimum of 100 feet from the work area.
 - b. Mask off or cover all air intakes near the work area to prevent odors from entering occupied areas of the building or structure.
 - c. Set up wind breaks when needed.
 - d. Minimize or exclude all personnel not directly involved with the coating application.
 - e. Have CO₂ or other dry chemical fire extinguishers available at the jobsite.
 - f. Provide adequate ventilation.
 3. After completion of application, do not allow traffic on coated surfaces for a period of at least 48 hours at 75°F. and 50% R.H., or until completely cured.
 4. Protect plants, vegetation and animals which might be affected by coating. Use drop cloths or masking as required.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Vehicular Deck Coating Material:
1. Primer: Concrete and metal primers as required by Neogard.
 2. Sheet Flashing: 6" or 12" wide non-staining elastomeric sheet flashing material having a minimum thickness of 60 mils.
 3. Liquid Flashing: 70400 series polyurethane coating.
 4. Aggregate: 7992 silica (quartz) sand or other aggregate approved by Neogard.
 5. Elastomeric Base Coat: 70400 series polyurethane coating, gray in color.
 6. Elastomeric Topcoat: 7400 series polyurethane coating, gray or tan in color.
 7. Sealant: 70991 or other polyurethane sealant approved by Neogard.

2.02 MATERIAL PERFORMANCE CRITERIA

- A. Minimum performance requirements for the elastomeric deck coatings to be used on this project are:

PERFORMANCE REQUIREMENTS OF CURED FILM			
PHYSICAL PROPERTIES	TEST METHOD	BASE COAT	TOPCOAT
Tensile Strength	ASTM D412	1,200 psi	2,500 psi
Elongation	ASTM D412	400%	400%
Permanent Set	ASTM D412	<10%	<30%
Tear Resistance	ASTM D1004	150 pli	200 pli
Water Resistance	ASTM D471	<3%	<3%
MVT @ 20 mils	ASTM E96	2.6 English	2 English
Taber Abrasion (cs17)	ASTM D4060	30 mg/1,000 rev	25 mg/1,000 rev
Shore A	ASTM D2240	70 - 75	75 - 80
Adhesion	ASTM D4541	300 psi	300 psi
Standard Specifications for High-Solids Content, Cold-Applied Elastomeric Waterproofing Membrane with Integral Wearing Surface	ASTM C957	System Exceeds Requirements	

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Concrete: Verify that the work done under other sections meets the following requirements:
1. The concrete deck surface is free of ridges and sharp projections. If metal forms or decks are used they should be ventilated to permit adequate drying of concrete on exterior exposed deck.
 2. The concrete was cured for a minimum of 28 days. (Minimum of 4,000 psi compressive strength). Water-cured treatment of concrete is preferred. The use of concrete curing agents, if any, shall be of the sodium silicate base only; others require written approval by Neogard.
 3. The concrete was finished by a power or hand steel trowel followed by soft hair broom to obtain light texture or "sidewalk" finish.
 4. Damaged areas of the concrete deck be restored to match adjacent areas. Use 100% solids epoxy and sand for filling and leveling.

3.02 PREPARATION

- A. Cleaning: Surfaces contaminated with oil or grease shall be vigorously scrubbed with a stiff bristle broom and a strong non-sudsing detergent. Thoroughly wash, clean, and dry. Areas where oil or other

contaminants penetrate deep into the concrete may require removal by mechanical methods.

- B. Shot Blasting: Required surface preparation method for remedial construction, is also the preferred method for new construction. Mechanically prepare surface by shot blasting to industry standard surface texture (ICRI's CSP3-4) without causing additional surface defects in deck surface. Shot blasting does not remove deep penetrating oils, grease, tar or asphalt stains. Proper cleaning procedures should be followed to insure proper bonding of the deck coating. Note: If shot blasting is not practical, treat concrete surfaces with 10% to 15% solution of muriatic acid to remove laitance and impurities. After acid has stopped foaming or boiling, immediately rinse thoroughly with water. Re-rinse as required to remove muriatic acid solution. Acid etching does not remove deep penetrating oils, grease, tar or asphalt stains. Proper cleaning procedures should be followed to insure proper bonding of the deck coating.
- C. Cracks and Cold Joints: Visible hairline cracks (up to 1/16" in width) in concrete and cold joints shall be cleaned, primed as required and treated with liquid flashing a minimum distance of 2" on each side of crack to yield a total thickness of 30 dry mils. Large cracks (over 1/16" in width) shall be routed out and sealed with sealant. Sealant shall be applied to inside area of crack only, not applied to deck surface. Detail sealed cracks with liquid flashing a distance of 2" on each side of crack to yield a total thickness of 30 dry mils.
- D. Control Joints: Seal secondary control joints with sealant. Sealant shall be applied to inside area of joint only, not applied to deck surface. Detail sealed joints with liquid flashing a distance of 2" on each side of joint to yield a total thickness of 30 dry mils.
- E. Sheet Flashing: Install sheet flashing where indicated on the drawings prior to the application of base coat material.
- F. Surface Condition: Surface shall be clean and dry prior to coating.
- ### 3.03 APPLICATION
- A. Primer: Where required, apply 1/3 gallon per 100 square feet (300 sf/gl) to all concrete surfaces in strict accordance with procedures outlined by Neogard. Within 24 hours of application of primer, base coat must be applied. If base coat cannot be applied within 24 hours, re-prime.
- B. Base Coat: Apply 1-2/3 gallons per 100 square feet (60 sf/gl) of elastomeric base coat to deck surfaces to yield an average 20 dry mils in strict accordance with procedures outlined by Neogard. Extend base coat over cracks and control joints which have received treatment.
- C. Wearing Surface Coat: Apply 2/3 gallon per 100 square feet (150 sf/gl) of elastomeric topcoat to yield an average of 8 dry mils and immediately broadcast aggregate, evenly distributed, into wet coating at the rate of 10 to 15 pounds per 100 square feet. When dry, remove excess aggregate and recoat surface with one gallon per 100 square feet (100 sf/gl) of elastomeric topcoat to yield an average of 12 dry mils. Total system coating thickness averages 40 dry mils exclusive of aggregate.
- D. Double-Texturing: For heavy traffic areas such as ticket booths, spiraled ramps, turn areas, or in other areas subjected to extremely high traffic abrasion,

double-texturing is required. In such areas, apply double-texture as follows: After the coat to receive aggregate (the first wearing surface coat) has dried and loose aggregate removed, apply one gallon per 100 square feet (100 sf/gl) of elastomeric topcoat to yield an average of 12 dry mils and immediately broadcast additional aggregate, evenly distributed, into wet coating at the rate of 10 to 15 pounds per 100 square feet. When dry, remove excess aggregate and recoat surface with one gallon per 100 square feet (100 sf/gl) of elastomeric topcoat to yield an average of 12 dry mils. Double-textured areas will yield an average of 52 dry mils, exclusive of aggregate.

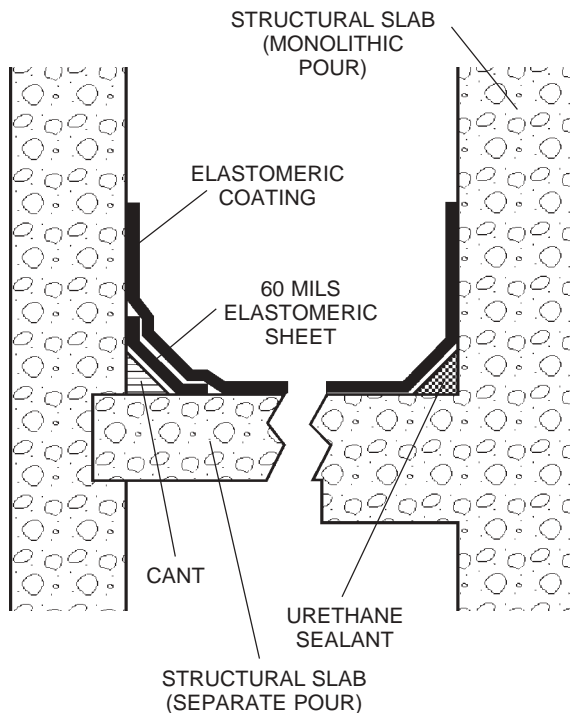
*Note to specification writer: Thickness values of cured film are averages and can vary due to finish of surface.

3.04 CLEANING

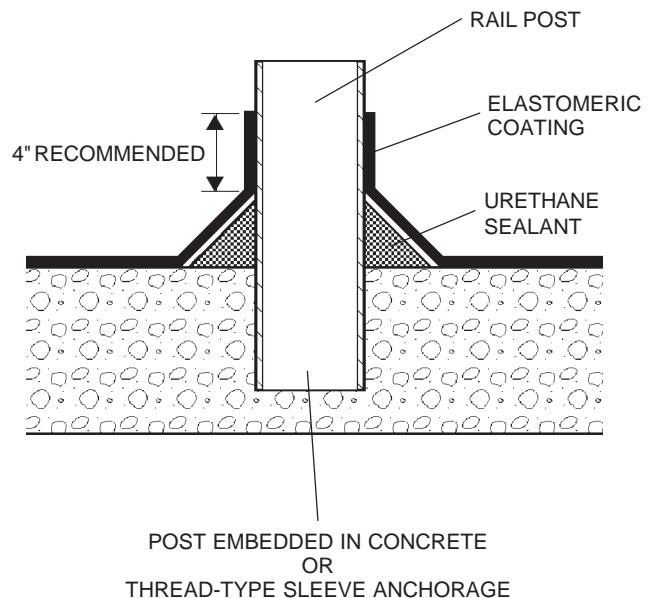
- A. Remove debris resulting from completion of coating operation from the project site.

SURFACE APPLIED WATERPROOFING DETAILS

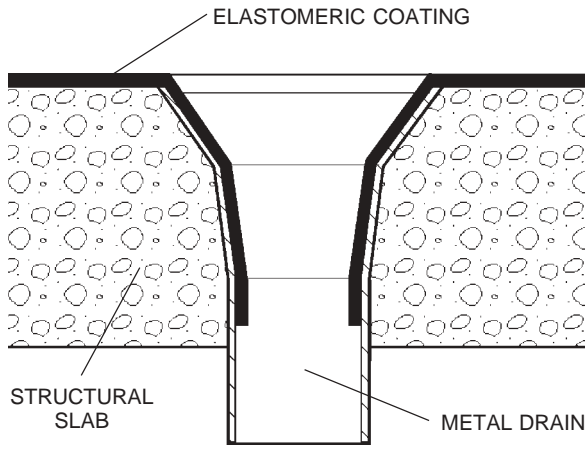
The following details are utilized in the specification and design of surface applied waterproofing, in both new and retrofit applications. They are provided to show a generally recommended procedure for dealing with the condition shown. They will not and can not provide a specific solution for every condition likely to be encountered in field application. Where field conditions differ, the use of applicable portions of the details shown or their adaptation by an experienced and conscientious applicator should result in a quality project.



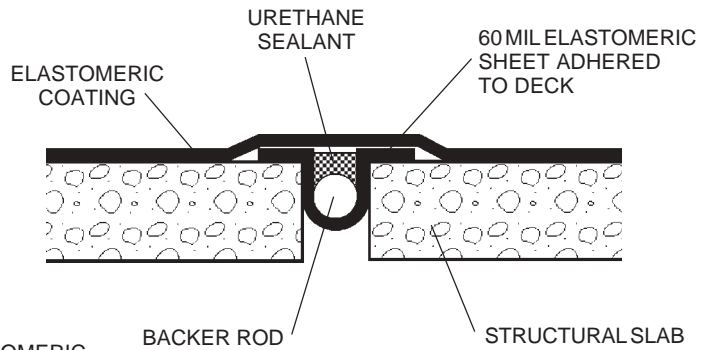
TYPICAL DECK FLASHING



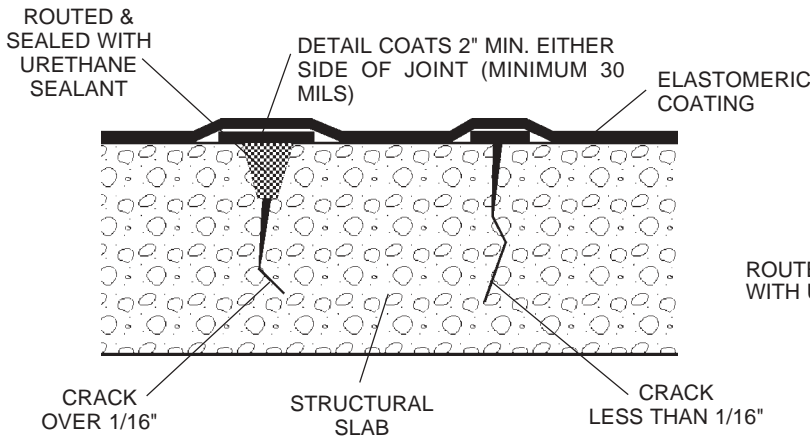
VERTICAL PROJECTION



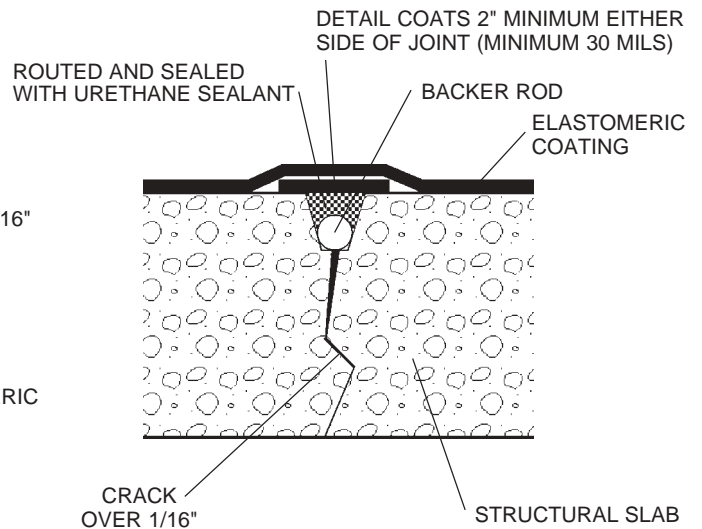
DRAIN DETAIL



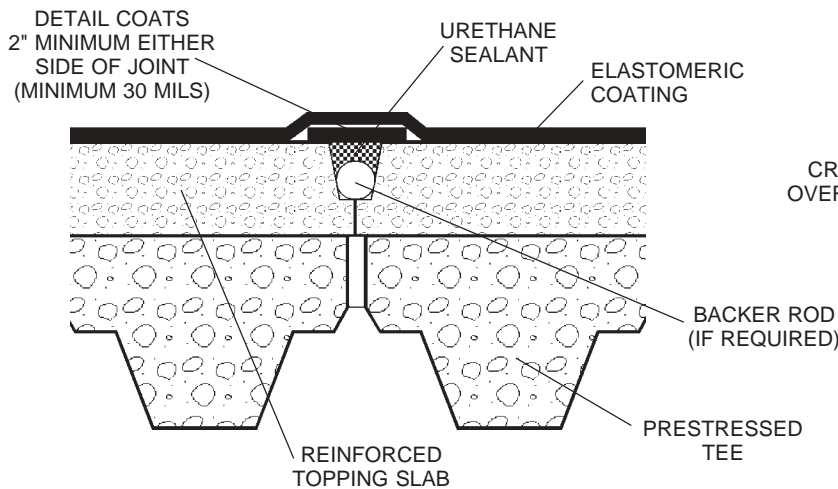
EXPANSION JOINT



CRACK DETAIL



THROUGH SLAB CRACK



DOUBLE TEE CRACK CONTROL

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NEOGARD

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