Guide Specification

RTS Pedestrian System — PMMA/PUMA

Section 07 18 13 Pedestrian Traffic Coatings

PART 1 GENERAL

1.1 SUMMARY

A. Provide labor, materials, equipment and supervision necessary to install a fluid-applied coating system as outlined in this specification to new or existing concrete surfaces.

B. The manufacturer's application instructions for each product used are considered part of this specification and should be followed at all times.

C. Related Sections:
1. Section 03 30 00: Cast-in-Place Concrete
2. Section 03 40 00: Precast Concrete
3. Section 07 90 00: Joint Protection

1.2 SYSTEM DESCRIPTION

A. Neogard RTS Pedestrian System shall be a complete system of compatible materials supplied by Neogard to create a seamless coating with integral wearing surface.

B. Neogard RTS Pedestrian System shall be designated for application on the specific type of deck indicated on the drawings.

1.3 SUBMITTALS

A. Technical Data: Submit manufacturer's product data and Safety Data Sheets (SDS) on each product.

B. Samples: Submit samples of specified coating system. Samples shall be construed as examples of finished color and texture of the system only.

C. Applicator Approval: Submit letter from manufacturer stating applicator is approved to install the specified pedestrian traffic coating system.

D. Warranty: Submit copy of manufacturer's standard warranty.

1.4 QUALITY ASSURANCE

A. Supplier Qualifications: Neogard RTS Pedestrian System, as supplied by Neogard, is approved for use on this project.

B. Applicator Qualifications: Applicator shall be approved to install specified system.

C. Requirement of Regulatory Agencies: Comply with applicable codes, regulations, ordinances and laws regarding use and application of coating systems.

D. Field Sample:
1. Install a field sample of at least 100 square feet at the project site or pre-selected area as agreed to by owner's representative, applicator and manufacturer.
2. Apply material in accordance with manufacturer’s written application instructions.
3. Field sample will be standard for judging color and texture on remainder of project.
4. Maintain field sample during construction for workmanship comparison.
5. Do not alter, move, or destroy field sample until work is completed and approved by Owner’s representative.

1.5 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 77°F (25°C). Handle products to prevent damage to container. All materials shall be stored in compliance with local fire and safety requirements. Do not store at high temperatures or in direct sunlight.

1.6 PROJECT CONDITIONS

A. Prior to starting work, read and follow the SDS and container labels for detailed health and safety information.

B. Only apply to dry surfaces. Do not apply to damp or frosty surfaces. Do not proceed with application of materials if precipitation is imminent.

C. Ambient temperature should be a minimum 23°F (-5°C). Contact Neogard if applying below 23°F (-5°C). Special precautions are to be taken when ambient temperatures are approaching 85°F (30°C), and/or substrate temperatures are approaching 100°F (38°C). If necessary, limit material application to evening hours for exterior exposed decks, or decks exposed to direct sun.

D. Coordinate coating work with other trades. Applicator shall have sole right of access to the specified area for the time needed to complete the application.

E. Protect plants, vegetation or other surfaces not to be coated against damage or soiling.

F. Keep products away from spark or flame. Do not allow the use of spark-producing equipment during application and until all vapors have dissipated. Post "No Smoking" signs.

G. Maintain work area in a neat and orderly condition, removing empty containers, rags and rubbish daily from the site. All waste PUMA/PMMA liquids shall be catalyzed for proper disposal.

1.7 WARRANTY

A. Upon request, Neogard shall offer a manufacturer's standard warranty for institutional, commercial, industrial, and high-rise/multi-family residential projects only, after substantial completion of the application and receipt of a properly executed warranty request form.

PART 2 MATERIALS

2.1 MANUFACTURER

A. Neogard, A part of Hempel, 2728 Empire Central, Dallas, TX 75235, (800) 321-6588, www.neogard.com.

2.2 MATERIALS

A. Pedestrian Traffic Coating Materials (Hempel product numbers in parentheses):
1. Cleaner: 800 RTS PMMA Cleaning Agent (66ZJB).
2. Filler: 900 RTS PMMA Filler (63ZJB).
3. Initiator: 600 RTS PMMA/PUMA Initiator (95UJB).
4. Primer: 100 RTS Concrete and Metal Primer (256JB).
5. Aggregate (two options):
   a. 7992-U 16/30 mesh silica quartz sand.
   b. 86364 20/40 mesh silica quartz sand (66030).
6. Membrane: 200 RTS Membrane PUMA coating (870JB).
7. Body Coat: 300 RTS Flexible Body Coat PMMA coating (871JB).
8. Topcoat: 400 RTS Topcoat PMMA coating (872JB).
9. Pigment: 700 RTS series pigments (63YJB).

B. Typical physical properties of cured 200 RTS used on this project are:
1. Tensile strength, 354 psi, ASTM D638
2. Elongation, 282%, ASTM D638
3. Shore A, 75, ASTM D2240
4. Shore D, 25, ASTM D2240

5. Low-temperature crack bridging, Pass at 40/60/80 mils, ASTM C1305

C. Typical physical properties of cured 300 RTS used on this project are:
1. Tensile strength, 615 psi, ASTM D638
2. Elongation, 204%, ASTM D638
3. Shore A, 91, ASTM D2240
4. Shore D, 41, ASTM D2240
5. Low-temperature crack bridging, Pass at 40/60/80 mils, ASTM C1305
6. Permeance, 0.53 US/0.35 Metric Perms, ASTM D1653
7. MVT, 143.0mg m^2 1 hour/3.43g m^2 24 hours, ASTM E96

D. Typical physical properties of cured 400 RTS used on this project are:
1. Tensile strength, 2,017 psi, ASTM D638
2. Elongation, 9%, ASTM D638
3. Shore A, 95, ASTM D2240
4. Shore D, 60, ASTM D2240
5. Taber Abrasion, 33 mg/1,000 CS-17, ASTM D4060
6. Permeance, 0.48 US/0.31 Metric Perm, ASTM 1653
7. MVT, 159.5mg m^2 1 hour/3.83g m^2 24 hours, ASTM E96

E. The above tested results are typical values. Individual lots may vary up to 10% from the typical value. Further technical information can be found at www.neogard.com.

2.3 ACCESSORIES

A. Miscellaneous materials such as cleaning agents, adhesives, reinforcing fabric, backer rod, deck drains, etc., shall be compatible with the specified pedestrian traffic coating system.

2.4 MIXING

A. Comply with manufacturer's instructions for mixing procedures.

PART 3 EXECUTION

3.1 EXAMINATION

A. Concrete: Verify that the work done under other sections meets the following requirements:
1. That 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.
2. That the concrete was finished by a power or hand steel trowel followed by soft hair broom to obtain light texture or “sidewalk” finish.
3. That the concrete was cured for a minimum of 28 days. (Minimum of 3,000 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.
4. That moisture content in the concrete must be less than 6% as measured using a Tramex CME 4 Moisture Meter. Only apply to dry surfaces. Do not apply to damp surfaces.

B. Metal:
1. Metal surface are to be prepared to SSPC- SP5/NACE No 1 Blast Cleaning, white metal finish.

3.2 PREPARATION

A. Cleaning: Surfaces contaminated with oil or grease shall be vigorously scrubbed with a stiff bristle broom and a strong non-sudsing detergent such as Neogard 8500 BioDegradable Cleaner (Hempel 089JB). 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-CSP4) without causing additional surface defects in substrate. Shot-blasting does not remove deep penetrating oils, grease, tar or asphalt stains. Proper cleaning procedures should be followed to ensure proper bonding of the deck coating.

C. Hydro-Blasting: Alternative if shot-blasting is not practical. Use a minimum of 4,000 psi spray at tip, within 6" of substrate to prepare surface by hydro-blasting to industry standard surface texture (ICRI's CSP3–CSP4) without causing additional surface defects in deck. Rinse thoroughly to ensure all residue is removed from the surface. Allow deck to completely dry prior to application of deck coating materials.

D. Cracks, Cold Joints an Control Joints:
1. Moving Cracks: Apply 100 RTS PMMA Concrete and Metal Primer and fill with 200 RTS Membrane.
2. Non-Moving Cracks: Apply 100 RTS PMMA Concrete and Metal Primer and fill with 300 RTS Flexible Body Coat.
3. Strike coating flush with adjacent surfaces.

3.3 APPLICATION

A. Important: Clean tools with Neogard 800 PMMA Cleaning Agent only. Other solvents may contaminate PMMA/PUMA coatings, and cause coating to cure improperly.

B. Add appropriate dosage of Neogard 600 RTS BPO Initiator to all materials and mix thoroughly before applying. Refer to Neogard BPO Initiator Dosage Chart for correct amounts. BPO Initiator Dosage Chart also available in Neogard PMMA/PUMA Product Data Sheets.

C. System A:
1. Primer: Apply 100 RTS primer at a rate of 90 sf/gal to yield 17 mils to all surfaces. Allow to dry approximately 45 minutes.
2. Membrane: Mix 200 RTS Membrane with 700 RTS series pigment (for added visibility) at 0.25 lbs/gallon. Apply at a rate of 26 sf/gal to yield 60 dry mils. Extend base coat over cracks and control joints which have received detail treatment.
3. Flexible Body Coat: Apply 300 RTS Flexible Body Coat at a rate of 90 sf/gal to yield 17 dry mils. Immediately broadcast 20/40 mesh silica quartz aggregate to excess. When dry, remove excess aggregate.
4. Topcoat: Mix 400 RTS Topcoat with 700 RTS series pigment at 0.25 lbs/gallon. Apply at a rate of 64 sf/gal to yield 25 dry mils.

D. System B:
1. Primer: Apply 100 RTS primer at a rate of 90 sf/gal to yield 17 mils to all surfaces. Allow to dry approximately 45 minutes.
2. Flexible Body Coat: Apply 300 Flexible Body Coat mixed with 900 RTS Filler at 10 lbs/gal at a rate of 26 sf/gal to yield 60 dry mils. Immediately broadcast 20/40 mesh silica quartz aggregate to excess. When dry, remove excess aggregate.
3. Topcoat: Mix 400 Topcoat with 700 RTS series pigment at 0.25 lbs/gallon. Apply at a rate of 64 sf/gal to yield 25 dry mils.

E. Applicator is responsible for applying sufficient coating to the substrate.

3.4 CLEANING

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

B. Refer to the Neogard Pedestrian Deck Coating Systems Maintenance Manual for typical cleaning methods.

3.5 PROTECTION

A. System may be opened to traffic 1 hour after application.

END OF SECTION

Issued by: Hempel (USA) – Neogard RTS Pedestrian System

This Guide Specification supersedes those previously issued.

Neogard®, A part of Hempel
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