

**Guide Specification****PART 1 GENERAL****1.1 SUMMARY**

- A. Provide labor, materials, equipment and supervision necessary to install a high build wall and coating system as outlined in this specification.
- 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. Section 03 30 00 - Cast-in-Place Concrete
 - 2. Section 07 92 00 - Joint Sealants
 - 3. Section 07 95 00 - Expansion Control

1.2 SYSTEM DESCRIPTION

- A. WallGard shall be a complete system of compatible materials supplied by NEOGARD® to create a high performance, seamless, chemical resistant vertical and overhead epoxy coating system.
- B. WallGard shall be designated for application on the specific type of substrate indicated on the drawings.

1.3 SUBMITTALS

- A. Product Data: Submit NEOGARD® product literature and installation instructions.
- B. Project Reference List: Submit list of projects as required by this specification.
- C. Samples: Submit samples of specified high performance, seamless, chemical resistant vertical and overhead epoxy system. Samples shall be construed as examples of finish only.
- D. Applicator Approval: Submit letter from manufacturer stating applicator is approved to install the high performance, seamless, chemical resistant vertical and overhead epoxy system.
- E. Warranty: Submit copy of manufacturers standard warranty.

1.4 QUALITY ASSURANCE

- A. Supplier Qualifications: WallGard, as supplied by NEOGARD®, is approved for use on this project.

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

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 75°F (23.8°C). Handle products to avoid damage to container. Do not store for long periods in direct sunlight.

1.6 PROJECT CONDITIONS

- A. Environmental Conditions:
 - 1. Do not proceed with application of materials when substrate temperature is less than 50°F (10°C). It is recommended to maintain a minimum surface temperature of 50°F (10°C) for a minimum of 48 hours before, during and after installation, or until cured.
 - 2. Concrete must be free of hydrostatic, capillary or moisture vapor pressure. Substrates in contact with ground must have a properly installed, effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor pressure. Moisture content of concrete not to exceed four pounds per 1,000 square feet per 24 hours when tested by the referee or quantitative calcium chloride test method.
 - 3. Do not apply materials unless surface to receive coating is clean and dry.
 - 4. Gypsum drywall is only suitable for dry areas. Water resistant gypsum board is suitable in occasionally wet areas. Tape and fill joints; fill fastener heads and other indentations for smooth finished surfaces.

1.7 WARRANTY

- A. Upon request, NEOGARD® shall offer the manufacturer's standard warranty upon receipt of a properly executed warranty request form.

PART 2 PRODUCTS**2.1 MANUFACTURER**

- A. NEOGARD® Division of JONES-BLAIR® Company, 2728 Empire Central, Dallas, TX 75235, Toll Free (800) 321-6588, Fax (214) 357-7532, www.neogard.com.

2.2 MATERIALS

- A. WallGard:
 - 1. Primer: 70714/70715 clear epoxy.

2. High Build Epoxy: 70724/70715 pigmented epoxy.
3. Topcoat: Deco-Glaze pigmented waterborne epoxy-acrylic coating.
4. Chemical Resistant Urethane (CRU): 70815/70816 ultra-high solids urethane, clear in color.
5. Crack and Joint Filler: 70718/70719 flexible epoxy.
6. Sealant: 70991 or other polyurethane sealant approved by NEOGARD®.
7. Reinforced Mesh: 4 oz. fiber glass mesh.

2.3 MATERIAL PERFORMANCE CRITERIA

- A. Typical performance requirements of cured 70724/70715 epoxy used on this project are:

PERFORMANCE REQUIREMENTS OF CURED FILM		
PHYSICAL PROPERTIES	TEST METHOD	RESULTS
Tensile Strength	ASTM D638	5,000 psi
Elongation	ASTM D638	10%
Shore D Hardness	ASTM D2240	80
Adhesion	ASTM D4541	300 psi
Taber Abrasion (cs17)	ASTM D4060	50 mg/1,000 rev
Water Resistance	ASTM D570	0.15%
MVT @ 10 mils	ASTM E96	0.15

2.4 MIXES

- A. Comply with manufacturer's instructions for mixing procedures.
- B. Carefully measure and mix the components together.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that the work done under other sections meets the following requirements:
 1. That the wall and ceiling substrates are free of ridges and sharp projections, sound and dry.
 2. That the concrete was cured for a minimum of 28 days (minimum of 3,500 psi compressive strength). The use of concrete curing agents, if any, shall be of a sodium silicate base only; others require written approval from NEOGARD®.
 3. That damaged areas of the concrete substrate be restored to match adjacent areas. Use 70714/70715 epoxy and oven-dry silica aggregate approved by NEOGARD® for filling and leveling at a ratio of one part epoxy mixed with four parts aggregate by volume.
 4. Ensure that environmental and site conditions are suitable for application and curing.

3.2 PREPARATION

- A. Protection:
 1. Protect adjacent surfaces from damage resulting from work of this trade. If necessary, mask and/or cover adjacent surfaces, fixtures, equipment, etc. by suitable means.

2. Provide a suitable work station to mix the coating materials.

B. Surface Preparation:

1. Cleaning: Surfaces contaminated with oil or grease shall be vigorously scrubbed with a power 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.
2. Depending on the substrate, consult NEOGARD® for specific instructions.
3. Non-moving Cracks: Fill all non-moving cracks with 70714/70715 epoxy mixed with P1934 fumed silica to form a paste. The mix ratio is one part 70714/70715 epoxy to 2 (up to 3) parts P1934 fumed silica by volume.
4. Moving Cracks or Control Joints: Route all large cracks, remove dust and debris, and fill flush with 70718/70719 flexible epoxy.
5. Moving Control Joints: Seal secondary control joints with 70991 sealant. Re-incorporate expansion joints and control joints into coating system if conditions require. Consult NEOGARD® for details on moving cracks, expansion joint details and moving control joints.
6. Surface Condition: Substrate must be free of hydrostatic, capillary or moisture vapor pressure. Substrates in contact with ground must have a properly installed, effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor pressure. Moisture content of concrete not to exceed four pounds per 1,000 square feet per 24 hours when tested by the referee or quantitative calcium chloride test method.
7. Do not apply materials unless surface to receive coating is clean and dry.

3.3 APPLICATION

- A. Primer: Mix 70714/70715 clear epoxy at a ratio of 2:1 for three minutes. Apply at a minimum rate of 320 sf/gal (5 mils DFT) to prepared substrate and allow to cure 8 to 12 hours @ 70°F (21.1°C) or until tack free.
- B. First Base Coat: Mix 70724/70715 pigmented epoxy at a ratio of 3:1 for three minutes. Apply at a minimum rate of 100 sf/gal (16 mils DFT) and allow to cure 8 to 12 hours @ 70°F (21.1°C) or until tack free.
- C. Optional Second Base Coat: For anticipated mechanical abuse or as requested, embed re-enforced fiber glass mesh into wet first base coat. After it cures, apply optional second base coat. Mix 70724/70715 pigmented epoxy at a ratio of 3:1 for three minutes. Apply at a minimum rate of 100 sf/gal (16 mils DFT), and allow to cure 8 to 12 hours @ 70°F (21.1°C) or until tack free.
- D. Seal Coat: Thoroughly mix Deco-Glaze before use. Apply at 400 sf/gal (1.8 mils DFT) and allow to cure 4 hours @ 70°F (21.1°C) or until tack free.

- E. Topcoat: Thoroughly mix Deco-Glaze before use. Apply at 400 sf/gal (1.8 mils DFT) and allow to cure 4 hours @ 70°F (21.1°C) or until tack free. Note: Deco Glaze topcoat is not recommended for use in areas where constant humidity or moisture is present, such as showers. If constant humidity or moisture is present, a final coat of 70815/70816 ultra-high solids clear urethane should be applied over the Deco Glaze at a rate of 400 sf/gal (3.5 mils DFT) and allow to cure 8 to 12 hours @ 70°F (21.1°C) or until tack free.
- F. Optional Topcoat: To maximize chemical resistance and ease of maintenance, please consult NEOGARD® Technical Service for finish coat.

3.4 CLEANING

- A. Remove debris resulting from completion of coating operation from the project site.
- B. Reference Seamless Flooring Systems Manual for typical cleaning methods.

3.5 PROTECTION

- A. After completion of application, do not allow heavy traffic on coated surfaces for a period of at least 24 hours at 75°F (23.8°C), or until completely cured 7 days @ 70°F (21.1°C).

END OF SECTION

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