



Guide Specification Chemical Resistant Flooring System

PART I - GENERAL

1.01 DESCRIPTION

A. Specified Work:

1. Paving and Surfacing: Section 0261 _____.
2. Site Improvements: Section 0272 _____.
3. Expansion and Contraction Joints: Section 0315 _____.
4. Cast-in-Place Concrete: Section 0330 _____.
5. Sealants: Section 0790 _____.

B. System Description:

1. The chemical resistant flooring system is a complete system of compatible materials manufactured by Neogard to create a seamless wearing surface.
2. The chemical resistant flooring & containment system is designed for application on the specific type of substrate indicated on the drawings.

1.02 QUALITY ASSURANCE

- A. Supplier: The Novolac 32 flooring system, as manufactured by Neogard, is approved for use on this project.
- B. Applicator: Applicators shall be approved by Neogard as licensed applicators.

1.03 SUBMITTALS

- A. Product Data: Product data and installation instructions are contained herein.
- B. Samples: Submit samples of specified Novolac 32 flooring system. Samples shall be construed as examples of finish only.
- C. License Certificate: Submit a currently dated Applicator's License Certificate issued by Neogard. The certificate shall verify the applicator's qualifications to properly install the Novolac 32 flooring & containment system.
- D. Limited Warranty: Upon completion of installation of the Novolac 32 flooring & containment system, submit Limited Warranty.

1.04 PRODUCT DELIVERY, STORAGE & 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.

1.05 JOB CONDITIONS

A. Environmental Conditions:

1. Do not proceed with application of materials when substrate temperature is less than 50°F (10°C).
2. Do not apply materials unless surface to receive coating is clean and dry.
3. Moisture content of concrete not to exceed four pounds per 1000 square feet per 24 hours when tested by the referee or the quantitative calcium chloride test method.

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 a NIOSH/MSHA-approved, self-contained breathing apparatus with a full-face piece operated in a positive pressure mode.
3. In unrestricted 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 fullface mask or OSHA-approved protective goggles.

C. Protection:

1. Keep products away from heat, and flames. Post "No Smoking" signs.
2. Vapors 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. Cover all intake vents near the work area.
 - c. Set up windbreaks when needed.
 - d. Minimize or exclude all personnel not directly involved with the coating application.
 - e. Have CO₂ or other dry chemical fire extin-

- f. Provide adequate ventilation.
- 3. After completion of application, do not allow heavy traffic on coated surfaces for a period of at least 48 hours at 75°F (23.8°C), or until completely cured 7 days @70°F (21.1°C).
- 4. Protect plants, vegetation and animals, which might be affected by coating. Use drop cloths or masking as required.

PART II - PRODUCTS

2.01 MATERIALS:

- A. Novolac32 Flooring Materials:
 1. Epoxy Primer: 70714/70715 clear.
 2. Novolac: 70704/70705 clear or pigmented.
 3. Crack Filler: 70718/70719 or other flexible epoxy approved by Neogard.
 4. Sealant: 70991 or others approved by Neogard.
 5. Fillers: Fumed silica and blended aggregates.

2.02 PERFORMANCE CRITERIA:

- A. The minimum performance requirements for the 70704/70705 used on this project are:

CURED RESIN PERFORMANCE		
Description	Test Method	Results
<i>Compressive Strength</i>	ASTM D695	10,000 psi
<i>Tensile Strength, Min.</i>	ASTM D638	8,500 psi
<i>Elongation @ Break</i>	ASTM D638	6.0%
<i>Flexural Strength</i>	ASTM D790	11,800 psi
<i>Modulus of Elasticity</i>	ASTM D790	134,000 psi
<i>Shore D Hardness</i>	ASTM D2240	84
<i>Adhesion</i>	ASTM D4541	300 psi
<i>Taber Abrasion</i> 1000 rev., cs17	ASTM D4060	40 mg
<i>Water Resistance</i>	ASTM D570	0.15%
<i>MVT @ 10 Mils</i>	ASTM E96	0.15 English
<i>Flame Spread</i>	ASTM E84	Class "A"
<i>Smoke Density Rating</i>	ASTM D2843	36.3%

PART III - EXECUTION

3.01 INSPECTION

- A. Verify that the work done under other sections meets the following requirements:
 1. That the concrete substrate surface is 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 and oven-dry silica aggregate approved by Neogard for filling and level-

ing at a ratio of one part epoxy mixed with four parts aggregate by volume.

3.02 PREPARATION

- A. Surface Preparation: Steel shotblast the surface to remove surface contaminants. Proper care and procedure should be taken to leave the concrete surface as unopened as possible. Note: Steel 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 epoxy primer. An improper steel shotblast can cause "pinholes" in concrete surfaces, which can result in blister problems during the application of the Novolac 32 flooring system.
- B. 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.
- C. Moving Cracks: Route all large cracks, remove dust and debris, and fill flush with 70718/70719 or other flexible epoxy approved by Neogard.
- D. Moving Control Joints: Seal secondary control joints with 70991 or other polyurethane sealant approved by Neogard. Re-incorporate expansion joints and control joints into flooring system if conditions require. Consult Neogard for details on moving cracks, expansion joint details and moving control joints.
- E. Non-moving Cracks or Control Joints: After shotblasting, fill all non-moving cracks and control joints with 70714/70715 mixed with fumed silica to form a paste. The mix ratio is one part 70714/70715 to 2 (up to 3) parts fumed silica by volume.
- F. Surface Condition: Surface shall be clean and dry prior to coating. Moisture content of concrete not to exceed 4 lbs. per 1000 square feet per 24 hours when tested by the referee or the quantitative calcium chloride test method.

3.03 APPLICATION

- A. Primer: Mix 70714/70715 at a ratio of 2:1 for three minutes. Apply at a minimum rate of 200 square feet per gallon (8 mils dft). Primer should be tack-free prior to applying base coat.
- B. Base Coat: Mix 70704/70705 clear or pigmented at a ratio of 3:2 for three minutes. Apply material at a rate of 100 square feet per gallon (16 mils dft) and allow to cure 8 to 12 hours @ 70°F (21.1°C) or until tack free.
- C. Top Coat Mix: 70704/70705 clear or pigmented at a ratio of 3:2 for three minutes. Apply material at a rate of 200 square feet per gallon (8 mils dft) and allow to cure for 24 hours @ 70°F (21.1°C) before allowing foot traffic.

3.04 CLEANING

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

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NEOGARD

Div. of Jones-Blair

6900 Maple Avenue - P.O. Box 35288 - Dallas, Texas 75235 - Phone 214/353-1689 - Fax 214/357-7532

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