

Guide Specification

1/16" Decorative Flooring System

Neo-Quartz 65 Broadcast

PART 1 - GENERAL

1.01 SUMMARY

- A. Provide labor, materials, equipment and supervision necessary to install a decorative flooring 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:
 - Expansion and Contraction Joints: Section 0315
 - 2. Cast-in-Place Concrete: Section 0330
 - 3. Sealants: Section 0790

1.02 SYSTEM DESCRIPTION:

- A. Neo-Quartz 65 Broadcast is a complete system of compatible materials manufactured by Neogard to create a decorative, seamless flooring surface.
- B. Neo-Quartz 65 Broadcast shall be designated on the specific type of substrate 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 decorative flooring system. Samples shall be construed as examples of finish only.
- D. Applicator Approval: Submit letter from manufacturer stating applicator is approved to install specified system.
- E. Warranty: Submit copy of manufacturers product warranty to cover a period of one year.

1.04 QUALITY ASSURANCE

- A. Supplier Qualifications: Neo-Quartz 65 Broadcast, as manufactured by Neogard, is approved for use on this project.
- B. Applicator: Applicators shall be approved to install specified system.

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 (23.8°C). 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 substrate temperature is less than 50°F (10°C).
- 2. Do not apply materials unless surface to receive coating is clean and dry.
- Moisture content of concrete not to exceed three 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:

- During coating application, it is <u>essential</u> 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.
- In confined areas, the best form of protection against organic solvents or other potentially sensitizing vapors is a <u>fresh air supply</u>. 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.
- 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 extinguishers available at the jobsite.
 - f. Provide adequate ventilation.
- 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 for 7 days @ 70°F (21.1°C).
- Protect plants, vegetation and animals, which might be affected by coating. Use drop cloths or masking as required.

PART2-PRODUCTS

2.01 MATERIALS:

- A. Decorative Flooring Material:
 - 1. Epoxy: 70714/70715 clear.
 - 2. Epoxy Seal Coat: 70734/70735 clear.
 - 3. Crack Filler: 70718/70719 flexible epoxy or other flexible epoxy approved by Neogard.
 - 4. Sealant: 70991 sealant or other polyurethane sealant approved by Neogard.
 - 5. Fillers: Fumed silica and blended aggregates.
 - 6. Aggregate: Colored Quartz Aggregate, specify blend desired.

2.02 PERFORMANCE CRITERIA:

A. The minimum performance requirements for the 70714/70715 used on this project are:

PERFORMANCE REQUIREMENTS OF CURED FILM			
PHYSICAL PROPERTIES	TEST METHOD	RESULTS	
Compressive Strength	ASTM D695	25,300 psi	
Tensile Strength	ASTM D638	3,700 psi	
Elongation	ASTM D638	25%	
Flexural Strength	ASTM D790	3,180 psi	
Flexural Modulus	ASTM D790	57,700 psi	
Shore D Hardness	ASTM D2240	78	
Adhesion	ASTM D4541	350 psi	
Impact Resistance	Mil-D-3134 Sec. 4.7.3	Passes 16 ft/lbs	
Taber Abrasion (cs17)	ASTM D4060	25 mg/1,000 rev	
Water Resistance	ASTM D570	0.21%	
MVT @ 10 mils	ASTM E96	0.16 Perm	
Fungus & Bacteria Resistance	Mil-F-52505	No Support of Growth Under TT-P-34	

B. The minimum performance requirements for the 70734/70735 used on this project are:

PERFORMANCE REQUIREMENTS OF CURED FILM			
PHYSICAL PROPERTIES	TEST METHOD	RESULTS	
Compressive Strength	ASTM D695	11,000 psi	
Tensile Strength	ASTM D638	8,000 psi	
Elongation	ASTM D638	14%	
Flexural Strength	ASTM D790	10,000 psi	
Flexural Modulus	ASTM D790	400,000 psi	
Shore D Hardness	ASTM D2240	82	
Adhesion	ASTM D4541	400 psi	
Impact Resistance	Mil-D-3134 Sec. 4.7.3	Passes 16 ft/lbs	
Taber Abrasion (cs17)	ASTM D4060	89 mg/1,000 rev	
Water Resistance	ASTM D570	<2%	
MVT @ 20 mils	ASTM E96	0.10 Perm	
Fungus & Bacteria Resistance	Mil-F-52505	No Support of Growth Under TT-P-34	

PART3-EXECUTION

3.01 EXAMINATION

- 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.
 - 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.
 - 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 leveling 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 flooring. An improper steel shotblast can cause "pinholes" in concrete surfaces which can result in blister problems during the application of the Neo-Quartz 65 Broadcast 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 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 three pounds per 1,000 square feet per 24 hours when tested by the referee or the quantitative calcium chloride test method.

3.03 APPLICATION

A. First Base Coat: Mix 70714/70715 at a ratio of 2:1 for three minutes. Apply at a rate of 130 square feet per gallon (12 mils wft) to prepared substrate with a notched squeegee or notched trowel. Back roll with a short-napped phenolic roller to assure

- even coverage.
- B. First Aggregate: Broadcast blended color quartz aggregate into wet epoxy base coat until refusal at a rate of <u>approximately</u> 40 pounds per 100 square feet. Maintain a one to two foot wet edge without any aggregate to allow for a smooth transition to the next pass of neat epoxy. Allow system to cure 8 to 12 hours @ 70°F (21.1°C) . Remove excess aggregate and sand with a circular floor sander to remove any rough spots.
- C. Second Base Coat: Mix 70714/70715 at a ratio of 2:1 by volume for three minutes. Apply at a rate of 130 square feet per gallon (12 mils wft) to prepared substrate with a notched squeegee or notched trowel. Back roll with a short napped phenolic roller to assure even coverage.
- D. Second Aggregate: Broadcast blended color quartz aggregate into wet epoxy base coat until refusal at a rate of <u>approximately</u> 40 pounds per 100 square feet. Maintain a one to two foot wet edge without any aggregate to allow for a smooth transition to the next pass of neat epoxy. Allow system to cure 8 to 12 hours @ 70°F (21.1°C). Remove excess aggregate and sand with a circular floor sander to remove any rough spots.
- E.. First Seal Coat: Mix 70734/70735 at a ratio of 2:1 for three minutes. Apply first seal coat of 70734/70735 at a rate of 160 square feet per gallon (10 mils wft) and allow to cure 8 to 12 hours @ 70°F (21.1°C) or until tack free.
- F. Second Seal Coat: Mix 70734/70735 at a ratio of 2:1 for three minutes. Apply second seal coat of 70734/70735 at a rate of 200 square feet per gallon (8 mils wft) and allow to cure 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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