

**SPECIFICATION
SECTION 09722 or 03920**

***Nikka Corporation
Decorative Quartz Epoxy Flooring System***

PART 1 – GENERAL

1.01 Related Documents

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this section.

1.02 Summary

- A. This section specifies an epoxy resurfacing system for interior concrete floors.
- B. *Quartz Epoxy Flooring* can be applied to newly constructed structures or as a retrofit to an existing building.
- C. *Quartz Epoxy Flooring* displays resistance to many common chemical exposures. Refer to product Chemical Resistance Guide for details.

1.03 System Performance Requirements

A. Physical characteristics of *Decorative Flooring Epoxy*

| <u>Property</u> | <u>Test Method (if relevant)</u> | | <u>Results</u> |
|----------------------------|---------------------------------------|-----|---------------------------|
| Viscosity | 700 | | to 1,000 cps |
| Per Cent Solids by weight | | 100 | |
| Mil Thickness per Coat | 16 | | to 18 |
| Volatile Organic Compounds | | 0 | g/L |
| Adhesion | Elcometer | 360 | psi (concrete failure) |
| Clarity | Gardner Color | 1 | - 2 |
| Hardness | Shore D | 81 | |
| Impact Resistance | Gardner Variable Impactor (50 in.lb.) | | Pass |
| Gloss | 60° Erichsen Glossmeter | | 60 to 90 |
| Abrasion Resistance | CS-17, 1000mg, 500 cycles | | 36 mg loss |
| Flexural Strength | ASTM D790 | 7, | 400 psi |
| Compressive Strength | ASTM D695 | 11, | 200 psi |
| Tensile Strength | ASTM D638 | 7, | 600 psi |
| Ultimate Elongation | 4. | | 1% |

1.04 Applicator Qualifications

- A. Company is competent at installing Quartz Epoxy Decorative Flooring and cove base (if part of project).
- B. Company is approved by product manufacturer for installation of specified flooring.

1.05 Submittals

- A. Submit a list of 3 projects similar in nature which have been installed by contractor.
- B. Submit manufacturer's product data, including physical properties and colors available.
- C. Submit Material Safety Data Sheets (MSDS).
- D. Submit a copy of Warranty to be issued.

1.06 Quality Assurance

- A. Installer Qualification: Use only qualified installer for the preparation of substrate, cracks, joint work, and complete flooring installation.
- B. Mock-up: On site, fabricate a system sample to an area of approximately 100 square feet to demonstrate quality of finished floor system, complying with manufacturer's instructions. Install system where directed by architect/engineer. Maintain system sample as a standard for all subsequent project installations.

1.07 Delivery, Storage and Handling

- A. Deliver product in factory packages, clearly marked with manufacturer's identification, printed instructions, lot numbers and date of manufacture for each component.
- B. Store materials between 60° and 90° F. in dry environment away from sunlight, heat, or other hazards.

1.08 Project Conditions

- A. Maintain minimum concrete surface temperature between 55° and 85° F., and relative humidity below 80% for a minimum of 48 hours before, during , and after installation, or until cured. Surface temperature must be 5° F. above dew point.
- B. Concrete hydrostatic, capillary or moisture pressure must be no greater than 3.0 lbs./1000 sf/24 hours. Substrates in contact with the ground must have a properly installed, functioning and effective vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor emission. Concrete must contain less than 3% moisture when tested per AATM D1864.
- C. Concrete to receive *Decorative Quartz Epoxy Flooring* is to be designed and installed as approved by the architect/engineer to minimize random cracking, curling, slab deflections and shall contain well designed control and isolation joints as approved by the architect/engineer.
- D. Do not apply sealers or membrane curing agents to concrete. Moisture curing is recommended. If said agents have been placed, they are to be removed prior to application of any part of this system.
- E. All new concrete must cure 30 days before coating.
- F. Review manufacturer's Technical Data Sheets for guidelines on concrete moisture levels and required substrate texture.
- G. Concrete containing lightweight aggregates is not recommended substrates.
- H. Surfaces are to be kept free from traffic and no trades shall be permitted in areas during the application and curing of the flooring.

PART 2 – PRODUCTS

2.01 Materials

- A. Nikka Corporation 1880 W Oak Pkwy Ste 105 Marietta GA 30062 (678)-290-0830
(Color Quartz Epoxy Flooring System) No equal permitted

- B. Quartz Epoxy seamless flooring system, consisting of:
 - 1. Primer selected according to project requirements from (NC-WBE) *Water Based Epoxy Primer*, (NC-SBE) *Solvent-borne Epoxy Primer*, (NC-HBEP) *Seamless Epoxy Binder* (NC-SEB)
 - 2. First body coat of (NC- CCEB) Chrystal Clear Epoxy Binder
 - 3. Second body coat of (NC- CCEB) Chrystal Clear Epoxy
 - 4. Seal coat of (NC- CCEB) Chrystal Clear Epoxy
 - 5. Optional topcoat of (NC-HPU) Hi-Performance Urethane

PART 3 – EXECUTION

3.01 Inspection

- A. Before starting work, ensure that environmental and site conditions are suitable for application and curing.
- B. Inspect surfaces for acceptability of level, pitch to drains, moisture content and transmission and other critical factors.
- C. Report, in writing, to architect/engineer, with copy to manufacturer, of deficiencies that could impair work. Surfaces must be approved prior to application of coating system.

3.02 Surface Preparation

- A. Prepare surfaces in accordance with manufacturer's instructions.
- B. Remove concrete laitance and provide proper surface profile by steel shotblasting or other method approved by manufacturer.
- C. Surface must be clean, dry and sound prior to application.
- D. Remove any curing compounds, sealers, paints or other substances which would interfere with system adhesion or performance.
- E. Pre-fill surface irregularities, holes and cracks in accordance with manufacturer's recommendations.

3.03 Mixing

- A. Comply with manufacturer's instructions for mixing procedures.
- B. Pre-mix each component before batching to ensure uniformity.
- C. Carefully measure components and mix product properly.

3.04 Installation

- A. (Optional) Install cove base to architect's specifications if included as part of project.

- B. Apply appropriate primer (refer to Section 2.01 A) according to manufacturer's instructions paying special attention to coverage rate or mil thickness.
- C. Apply the liquid portion of the Body Coat according to manufacturer's instructions paying special attention to achieving uniform and proper mil thickness of coating.
- D. Broadcast colored quartz aggregate into the Body Coat to rejection.
- E. Apply the liquid portion of the (2) Body Coat according to manufacturer's instructions paying special attention to achieving uniform and proper mil thickness of coating.
- F. Broadcast colored quartz aggregate into the Body Coat to rejection.
- G. Allow to cure according to manufacturer's instructions.
- H. (Optional) Apply selected Grout Coat to uniform and appropriate coverage rate and mil thickness.
- I. Apply Topcoat according to manufacturer's instruction paying special attention to create a uniform and appropriate coverage rate and film thickness.

3.05 Protection

- A. Keep other trades away from, and light traffic off of flooring for a minimum of 18 hours after completion of project.
- B. Based on standard environmental conditions of 70° F. and 50% relative humidity, the flooring will achieve full cure in 2 to 7 days.
- C. Cover any areas receiving subsequent traffic to protect flooring until all construction activities are concluded.