

SECTION 09965
Nikka Corporation
Thick Mil Flooring System

PART 1 – GENERAL

1.01 SECTION INCLUDES

- A. Provide labor and all necessary materials for an epoxy/urethane floor coating system designed for traffic, chemical resistance, and abrasion resistance – including all necessary surface preparation, primer(s), build coat(s), topcoat(s), and aggregates.

1.02 RELATED SECTIONS

- A. Division 3 (Concrete)
- B. Division 7 (Thermal and Moisture Protection)

1.03 DELIVERY, STORAGE AND HANDLING

- A. Ensure delivery of materials to job site in unopened, clean containers that are clearly marked with manufacturer's name, phone number, HMIS, appropriate lot/batch numbers, product name, and color.
- B. Store materials in a safe, dry, enclosed environment away from sunlight, excessive heat, and other hazards at a temperature between 60 and 90 degrees Fahrenheit.

1.04 JOB SITE CONDITIONS

- A. New concrete must be cured for at least 30 days prior to applying epoxy flooring system.
- B. Maintain surface and ambient temperature according to manufacturer's recommendations. Surface temperature must be at least 5 degrees Fahrenheit above dew point.
- C. Concrete must be free of hydrostatic, capillary, or moisture pressure. Substrates in contact with the ground must have a properly installed, functioning, and effective moisture vapor barrier to help prevent potential problems resulting from hydrostatic, capillary or moisture vapor pressure. Concrete must contain less than 3.0 pounds per 1,000 square feet per 24 hours when tested per ASTM F-1869.
- D. Concrete should have been designed and installed as approved by architect/engineer to minimize random cracking, curling, and slab deflections and shall contain well-designed control and isolation joints as approved by architect/engineer.
- E. 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.
- F. Surfaces are to be kept free of traffic and no trades shall be permitted in areas during the preparation of the floor surface, the application of the coating system, or the curing cycle of the coating system.

1.05 WARRANTY

- A. Submit a one-year warranty against defects in material and workmanship upon substantial completion of installation.

PART 2 – PRODUCTS

2.01 Material

Nikka Corporation 1255 Kincaid Rd Ste B Marietta GA 30066 (678)-290-0830
Thick Mil System (No equal permitted)

- A. A nominal 20-30 mil High Build Epoxy/Urethane System, including High Build Epoxy Primer (NC-HBEP), 100% Solids Epoxy, and optional Hi-Performance Urethane (NC-HPU) topcoat (with optional non-slip aggregate for slip resistance).

2.02 TYPICAL PHYSICAL PROPERTIES

<u>Property</u>	<u>Test Method</u>	<u>Result</u>
Hardness (Shore D)	ASTM D-2240	70 +
Compressive Strength	ASTM D-695	9,100 psi
Tensile Strength	ASTM D-638	4,800 psi
Flexural Strength	ASTM D-790	5,400 psi
Adhesion	ASTM D-4541	400 psi – substrate failure
Impact Resistance	ASTM 2794	160 in. lb. – pass
Abrasion Resistance CS-17 Wheel – 1000 gram load, 500 cycles	ASTM D-1044	20.0 mg loss

*Test data based on neat resin

PART 3 – EXECUTION

3.01 SURFACE PREPARATION

- A. Prepare surface in accordance with manufacturer's instructions. Project requires a CSP-1, 2, 3, 4, or 5, depending upon mil thickness of total flooring system. Refer to ICRI guideline No. 03732 for anchor profile requirements.
- B. Assure removal of concrete laitance by steel Diamond Grinding or other method approved by manufacturer.
- C. Surface must be clean, dry, and sound prior to application. Alkalinity of concrete should be less than 12.5 pH.
- D. Pre-fill surface irregularities, holes, and cracks in accordance with manufacturer's recommendations.

3.02 PRODUCT MIXING

- A. Comply with manufacturer's instructions for mixing procedures.
- B. Pre-mix each component before every batch to ensure uniformity, especially if not using all of the material in a package.
- C. Carefully measure components and mix thoroughly and properly.

3.03 INSTALLATION

- A. Apply High Build Epoxy Primer (HBEP) (refer to Section 2.01A) according to manufacturer's instructions – paying special attention to coverage rate/mil thickness (267 – 350 sq. ft. per gallon depending upon porosity of concrete).
- B. Install High Build Epoxy Top Coat (HBETC) of 100% Solids Epoxy (pre-pigmented) for a build of 16-25 mils (64 – 100 sq. ft. per gallon). Allow to cure.
- C. OPTIONAL: Apply the Hi-Performance Urethane(HPU) topcoat according to manufacturer's instructions – paying special attention to coverage rate/mil thickness (375 – 425 sq. ft. per gallon) (OPTIONAL: Add 1 pint of HWS or HWS non-slip aggregate per gallon of mixed Hi-Performance urethane topcoat according to desired surface texture to aid slip resistance)
- D. Observe all cure and recoat window requirements as provided in manufacturer's technical data sheets.

3.04 PROTECTION

- A. Keep other trades and all traffic away from flooring until coating system has fully cured.
- B. Based on standard environmental conditions of 70 degrees F and 50% humidity, the flooring should achieve full cure in 3 – 5 days.

END OF SECTION