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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Section numbers are from *MasterFormat 2010 Update*.

SECTION 03 15 00

CONCRETE FLOOR JOINT FILLERS

Specifier Notes: This section covers the following Nox-Crete Products Group semi-rigid concrete floor joint fillers for protecting interior, saw-cut, floor joint edge shoulders from edge fractures resulting from direct-point impact loading:

“Dynaflex JF-85”: Fast-setting, semi-rigid polyurea.

“Dynaflex 502”: Semi-rigid, epoxy-polyurethane copolymer.

Consult Nox-Crete Products Group for assistance in editing this section for the specific application.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Semi-rigid concrete floor joint fillers.

1.2 RELATED REQUIREMENTS

Specifier Notes: Edit the following list of related sections as required. Limit the list to sections with specific information that the reader might expect to find in this section, but is specified elsewhere.

- A. Section 03 30 00 – Cast-in-Place Concrete.

1.3 REFERENCE STANDARDS

Specifier Notes: List standards referenced in this section, complete with designations and titles. Delete standards not included in the edited section. Including a standard here does not require compliance with that standard.

- A. ASTM D 638 – Standard Test Method for Tensile Properties of Plastics.
- B. ASTM D 2240 – Standard Test Method for Rubber Property—Durometer Hardness.

1.4 SUBMITTALS

Specifier Notes: Edit submittal requirements as required. Delete submittals not required.

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including surface preparation and application instructions.
- C. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- D. Manufacturer's Project References: Submit manufacturer's list of successfully completed semi-rigid concrete floor joint filler projects, including project name and location, name of architect, and type and quantity of semi-rigid concrete floor joint fillers furnished.
- E. Warranty Documentation: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged, for past 5 years, in manufacture of semi-rigid concrete floor joint fillers of similar type to that specified.
- B. Applicator's Qualifications:
 - 1. Applicator regularly engaged, for past 5 years, in application of semi-rigid concrete floor joint fillers of similar type to that specified.
 - 2. Employ persons trained for application of semi-rigid concrete floor joint fillers.
 - 3. Approved by manufacturer.

Specifier Notes: Edit site test application as required. Delete site test application if not required.

- C. Site Test Application: Construct site test application of semi-rigid concrete floor joint fillers for evaluation of surface preparation techniques and application workmanship.
 - 1. Construct site test application using same materials for use in the Work.
 - 2. Construct site test application at locations determined by Architect.
 - 3. Do not proceed until workmanship of site test application is approved by Architect.
 - 4. Approved Site Test Application: Standard for workmanship of semi-rigid concrete floor joint fillers.

Specifier Notes: Edit preinstallation meeting as required. Delete meeting if not required.

- D. Preinstallation Meeting:
 - 1. Convene preinstallation meeting 2 weeks before start of application of semi-rigid concrete floor joint fillers.
 - 2. Require attendance of parties directly affecting work of this section, including Contractor, Architect, applicator, and manufacturer's representative.
 - 3. Review surface preparation, mixing, application, protection, and coordination with other work.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
 - 1. Store and handle materials in accordance with manufacturer's instructions.
 - 2. Keep materials in manufacturer's original, unopened containers and packaging until application.
 - 3. Store semi-rigid concrete floor joint fillers between 60 and 90 degrees F (16 and 32 degrees C).
 - 4. Store materials in clean, dry area indoors, out of direct sunlight.
 - 5. Protect materials during storage, handling, and application to prevent contamination or damage.

1.7 AMBIENT CONDITIONS

- A. Provide stabilized interior substrate temperature conditions.

Specifier Notes: Include the following sentence when specifying "Dynaflex 502".

- B. Minimum Substrate Temperature: 50 degrees F (10 degrees C).
- C. Minimum Temperature of Individual Liquid Components During Use: 60 degrees F (15 degrees C).

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Nox-Crete Products Group, 1444 South 20th Street, PO Box 8102, Omaha, Nebraska 68108. Toll Free 800-669-2738. Phone 402-341-1976. Fax 800-329-6733. www.nox-crete.com. customerservice@nox-crete.com.

2.2 MATERIALS

Specifier Notes: Specify Nox-Crete Products Group “Dynaflex JF-85” or “Dynaflex 502”. Delete material not required. Consult Nox-Crete Products Group for assistance in determining appropriate semi-rigid concrete floor joint filler for the specific application.

- A. Semi-Rigid Concrete Floor Joint Fillers: “Dynaflex JF-85”.
1. Description: Fast-setting, semi-rigid, 2-component, 100-percent solids, polyurea, industrial concrete floor joint filler for protecting interior joint edge shoulders from edge fractures resulting from direct-point impact loading.
 2. Density: 9.3 lbs per gal (1.1 kg/L).
 3. Solids Content: 100 percent.
 4. VOC: 55 g/L.
 5. Gel Time: 1 minute.
 6. Tack-Free Time: 10 minutes.
 7. Color: Gray.
 8. Hardness, ASTM D 2240:
 - a. Shore A: 85.
 - b. Shore D: 35.
 9. Tensile Properties, ASTM D 638:
 - a. Elongation: 500 percent.
 - b. 100 Percent Modulus: Minimum 650 psi.
 - c. Tensile Strength: Minimum 900 psi.
 10. Shrinkage: None.
 11. Water Absorption, 72 Hours: Less than 0.5 percent.
 12. USDA: Compliant For Incidental Food Contact.
- B. Semi-Rigid Concrete Floor Joint Fillers: “Dynaflex 502”.
1. Description: Semi-rigid, 2-component, 100-percent solids, moisture-insensitive, epoxy/polyurethane copolymer, industrial concrete floor joint filler for protecting interior joint edge shoulders from edge fractures resulting from direct-point impact loading.
 2. Density: 12.9 lbs per gal (1.6 kg/L).
 3. Solids Content: 100 percent.
 4. VOC: 120 g/L.
 5. Pot Life, 75 degrees F (24 degrees C): Approximately 1.5 hours.
 6. Color: Gray.
 7. Hardness, ASTM D 2240:
 - a. Shore A: 85, plus or minus 10.
 - b. Shore D: 55, plus or minus 5.
 8. Tensile Properties, ASTM D 638:
 - a. Elongation: Maximum 25 percent.
 - b. Tensile Strength: Minimum 400 psi.
 9. Initial Cure, 70 degrees F (21 degrees C): 6 to 8 hours.
 10. Shrinkage: None.
 11. Water Absorption, 72 Hours: Less than 0.5 percent.

12. USDA: Compliant For Incidental Food Contact.

2.3 ACCESSORIES

Specifier Notes: When specifying “Dynaflex JF-85” or “Dynaflex 502” and protection from semi-rigid concrete floor joint filler staining and/or a smoother joint filler finish are required, apply the following joint filler stain-blocking film before application of semi-rigid concrete floor joint fillers.

- A. Joint Filler Stain-Blocking Film: “Clean Shave”.
1. Description: Water-based, copolymer-resin, stain-blocking film for prevention of concrete staining caused by semi-rigid concrete floor joint filler application.
 2. Odor: Low.
 3. VOC: Less than 8 g/L.
 4. Vapor Pressure: Less than 17.0 mm Hg at 20 degrees C.
 5. Water Soluble.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine joints to receive semi-rigid concrete floor joint fillers.
- B. Notify Architect of conditions that would adversely affect application.
- C. Do not begin surface preparation or application until unacceptable conditions are corrected.

3.2 PREPARATION

- A. Protection of In-Place Conditions: Protect adjacent surfaces from contact with semi-rigid concrete floor joint fillers.
- B. Surface Preparation:
1. Prepare joints in accordance with manufacturer’s instructions.
 2. Clean joint surfaces of dirt, dust, debris, oil, grease, curing compound residue, laitance, and other contaminants which could adversely affect semi-rigid concrete floor joint filler adhesion.
- C. Concrete: Allow concrete to cure a minimum of 90 days before application of semi-rigid concrete floor joint fillers.

Specifier Notes: Include the following sentence when specifying “Dynaflex JF-85” or “Dynaflex 502” and protection from semi-rigid concrete floor joint filler staining and/or a smoother joint filler finish are required by applying joint filler stain-blocking film.

- D. Joint Filler Stain-Blocking Film: Apply joint filler stain-blocking film in accordance with manufacturer’s instructions before application of semi-rigid concrete floor joint fillers.

3.3 MIXING

- A. Mix material components in accordance with manufacturer's instructions.

3.4 APPLICATION

- A. Apply semi-rigid concrete floor joint fillers full depth in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Avoid incorporation of entrapped air when filling joints with semi-rigid concrete floor joint fillers.
- C. Overfill joints to slightly crowned excess. Refill low spots due to seepage.
- D. Do not use compressible foam backer rod, sand, or other fill material to reduce volume in joints. Use a maximum of 1/4 inch of silica sand to reduce joint filler seepage at bottom of saw cut joints.
- E. Do not apply semi-rigid concrete floor joint fillers to the following:
 - 1. Joints wet with standing water.
 - 2. Exterior applications.
 - 3. Inclined or sloped joints.
 - 4. Joints where anticipated movement will exceed 15 percent of joint width.
- F. Allow cure time for semi-rigid concrete floor joint fillers in accordance with manufacturer's instructions.
- G. Shave off excess semi-rigid concrete floor joint fillers flush with floor surface, after product has fully cured.

3.5 PROTECTION

- A. Protect applied semi-rigid concrete floor joint fillers from damage during construction.

END OF SECTION