



Crack Isolation Sheet Membrane

SPECIFICATIONS SHEET

TILE SETTING MATERIALS & ACCESSORIES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Tile setting materials and accessories, including anti-fracture/crack isolation membrane systems.
- B. Related Sections: Section(s) related to this section include:
1. Concrete floor finishing: Division 3 Concrete sections.
 2. Expansion or control joints and components: Division 5 Metal sections and Division 9 Flooring sections.
 3. Joint Sealers: Division 7 Joint Sealers sections.
 4. Tile or stone materials: Division 9 Tile & Stone Flooring.
 5. Plumbing Specialties, floor drains and fixtures: Division 15 Mechanical sections.
 6. Pan receptors and piping: Division 15 Mechanical sections.

1.02 REFERENCES

- A. American National Standards Associations (ANSI) Installation Specifications
1. A 108.1C - 1999 [Reaffirmed 2016] Ceramic tile installed in a mortar bed
 2. A 108.4 - 2009 Ceramic tile installed with organic adhesive or water cleanable tile-setting epoxy adhesive
 3. A 108.5 - 1999 [Reaffirmed 2010] Ceramic tile installed with dry-set Portland cement or latex Portland cement
 4. A 108.6 - 1999 [Reaffirmed 2010] Ceramic tile installed with chemical resistant, water cleanable tile setting and grout epoxy
 5. A 108.9 - 1999 [Reaffirmed 2010] Ceramic tile installed with modified epoxy emulsion mortar/grout
- B. American National Standards Associations (ANSI) Material Specifications
1. A 118.3 - 2013 Chemical Resistant, Water Cleanable Tile-Setting and Grouting Epoxy
 2. A 118.4 - 2018 Modified Dry-Set Cement Mortar
 3. A 118.5 - 1999 [Reaffirmed 2016] Chemical Resistant Furan mortars and grouts
 4. A118.12 - 2014 Crack Isolation Membranes for thin-set ceramic tile and stone installations
- C. American Society for Testing of Material (ASTM) Specifications
1. C-627-93(2007) Evaluating ceramic floor tile installation systems
 2. D-583 Water vapor transmission test
 3. D-146 Tensile MD and Tensile CD
 4. D-36 Penetration
 5. C-482 Shear/Bond
- D. Tile Council of North America (TCNA):
1. TCNA Handbook for Ceramic Tile Installation, latest edition, using ANSI 118.4 latex Portland cement mortar.

1.03 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide anti-fracture/crack isolation membrane, which has been manufactured to withstand 3/8" horizontal, structural movement of the substrate when covering the floor.

1.04 SUBMITTALS

- A. General: Submit listed submittals in accordance with conditions of the Contract and Division 1 Submittal Procedures Section.
- B. Product Data: Submit product data including manufacturer's product sheet, for specified products.
- C. Samples: Submit selection and verification samples.
- D. Quality Assurance Submittals: Submit the following:
1. Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
 2. Certificates: Product certificates signed by the manufacturer certifying materials comply with specified performance characteristics and physical requirements.
 3. Manufacturer's Instructions: Manufacturer's installation instructions.
 4. Manufacturer's Field Reports: Manufacturer's field reports.
- E. Closeout Submittals: Submit the following:
1. Warranty: Warranty documents specified herein.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: A professional tile or flooring contractor should perform the work of this section.
- B. Pre-Installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, manufacturer's installation instructions and manufacturer's warranty requirements. Comply with Division 1 Project Management and Coordination, Project Meetings Section.

1.06 DELIVERY, STORAGE AND HANDLING

- A. General: Comply with Division 1 Product Requirements Sections.
- B. Ordering: Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- D. Storage and Protection: Store materials protected from exposure to harmful weather conditions and at temperature conditions recommended by manufacturer.
1. Traffic: The membrane must be protected with minimum 1/4" plywood or heavy sheeting during construction.
 2. Leave a minimum of a 4" overlap to continue a new section of membrane at a later date. Protect the exposed section of membrane by taping heavy craft paper over it.

1.07 PROJECT/SITE CONDITIONS

- A. Substrate must be dry and temperature above 65°F when applying primer and membrane.
- B. Concrete sub-floors must be structurally sound, clean, level, free of holes, projections, free of moisture, sealers, or any material that would interfere with a good bond.
- C. Wood sub-floors must consist of joist spacing no more than 16" on-center, and a double sub-floor consisting of a minimum of 5/8" thick for each. A gap is required between the edges of the wood sheets.
- D. Existing floors made up of ceramic, terrazzo, marble, vinyl and painted floors must be structurally sound, stripped of waxes and sealers, before application of membrane.
- E. Deflection of substrate must not exceed L/360 on live or dead loads with a maximum variation of 1/4" in 10'.

1.08 WARRANTY

- A. National Applied Construction Products, Inc. offers a wide range of Performance and Materials Warranties. Please contact Customer Service for details at 800.633.4622 or visit www.NACproducts.com for more information on warranties.

1.09 MAINTENANCE

- A. After installation, tile must be protected from heavy construction equipment: i.e. fork lifts, dry wall carts etc. A non-tiled path is recommended for heavy equipment.

PART 2 PRODUCTS

2.01 TILE SETTING MATERIALS AND ACCESSORIES

- A. Manufacturer: National Applied Construction Products, Inc.
 - 1. Contact: 3200 S. Main St. Akron, OH 44319; Telephone: (800) 633-4622 or (330) 644-3117; Fax: (330) 644-3557
- B. Proprietary Product: ECB® Anti-Fracture/Crack Isolation Membrane
 - 1. Membrane: 40 + 5 mil thick load bearing membrane, capable of withstanding 3/8" horizontal structural crack and joint movement
 - 2. Self-adhering, pressure sensitive formulation
 - 3. Full Floor Coverage or;
 - 4. Strip application: material to be installed in a 36" wide strip application over control/saw cut joints as recommended by manufacturer and in 12" or 24" wide strip applications over non-structural and structural cracks.

2.02 EXISTING MATERIALS

- A. Compatible with most latex modified thin-set mortars, epoxies and adhesives.
- B. Adhesive residue from carpet, vinyl tile, linoleum and elastomeric membrane systems must be ground and shot blasted leaving minimal residue. A bond test must be conducted on a location to location and job by job basis.

2.03 EQUIPMENT

- A. Damp mop, industrial vacuum, chalk line, 75-100# roller or flat trowel, short nap paint roller or brush, hook or razor knife.

2.04 ACCESSORIES

- A. NAC TAC, NAC TAC II primer for interior applications or NAC TAC or NS97 primer for exterior/wet area applications
- B. MOISTURE LOCK 101® on absorptive substrates

- C. Approved urethane sealant in wet/exterior applications.
- D. Tile Bond Coat meeting ANSI A118.4

2.05 SOURCE OF QUALITY CONTROL

- A. Vapor Test: In areas where moisture is present, a vapor test is required.

PART 3 EXECUTION

3.01 ACCEPTABLE INSTALLERS

- A. Installer Qualifications: A professional tile or flooring contractor should perform the work of this section.

3.02 EXAMINATION

- A. Site Verifications of Conditions: Verify substrate conditions are acceptable for product installation in accordance with manufacturer's instructions.
 - 1. Verify substrate for conditions of the project.
 - 2. Verify surfaces are ready to receive work and comply with TCNA Handbook, Installation Methods.
 - 3. Confirm location of expansion or control joints required and details provided on the drawings.

3.03 PREPARATION

- A. Protection
 - 1. Keep area well ventilated when applying NS97 primer.
 - 2. Wear safety glasses, protective gloves and clothing when handling the primers and accessory products.
 - 3. Refer to the safety data sheet for further details.
- B. Surface Preparation
 - 1. Substrate must be dry and temperature above 65°F when applying primer and membrane.
 - 2. Concrete sub-floors must be structurally sound, clean, level, free of holes and projections, free of moisture, sealers, or anything that would interfere with a good bond.
 - 3. Wood sub-floors must consist of joist spacing no more than 16" on-center, and a double sub-floor consisting of a minimum of 5/8" thick for each. A gap is required between the edges of the wood sheets.
 - 4. Existing floors made up of ceramic, terrazzo, marble, vinyl and painted floors must be structurally sound, stripped of waxes and sealers, before application of membrane.
 - 5. Deflection of substrate must not exceed L/360 on live or dead loads with a maximum variation of 1/4" in 10'.

3.04 FIELD QUALITY CONTROL

- A. Field Evaluations are performed upon request.

3.05 CLEANING

- A. Membrane can be swept with a broom or vacuum,

END OF SECTION



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