SECTION 07XXX

ENDURIT QUICK-Fix 100 POLYUREA JOINT FILLER

PART 1 - GENERAL

1.01 Summary

A. Furnish labor, products and equipment required for joint preparation, repair and application of a pumped polyurea joint filling system to interior horizontal control, contraction and construction joints and to certain properly prepared random cracks as shown in the Plans and specified herein.

B. The joint filling system shall be pump or cartridge applied, 100% polyurea rapid cure product capable of curing at low temperatures and in the presence of moisture.

C. Related Work: Section 037XX Polyurea Repair Material
Section 079XX Polyurea Joint Sealant

1.02 Definitions

A. Joint filler - A high modulus of elasticity material used to fill interior small movement joints and cracks to ensure face and shoulder integrity when subjected to heavy vehicular traffic such as forklift and steel wheeled carts.

1.03 Reference Organizations:

American Concrete Institute — ACI
PO Box 9094
Farmington Hills, MI 48331-9094

American Society for Testing and Materials — ASTM
Barr Harbor Drive
West Conshohocken, PA 19428

1.04 Reference Standards

A. The below listed standards are incorporated into specification by reference and are a part of requirements for the Work.

B. ACI Standards

ACI 117-90	Standard Specification for Tolerances for Concrete Construction and Materials
ACI 301-96	Specifications for Structural Concrete
ACI 503.4-2.3.2.2	Modified Bond Strength

C. ASTM Standards

ASTM D 2240-91	Rubber Property- Durometer Hardness

1.05 Quality Control Provisions

A. Manufacturer Qualifications: Use manufacturer with minimum three years experience providing polyurea based sealants and coatings. The manufacturer should be a primary blender of polyurea product with proprietary formulations, an Authorized Contractor program, and capacity to provide field technical services as required.

B. Contractor Qualifications: Use Contractor holding a current Authorized Contractor Certificate from the manufacturer.

1.06 Quality Assurance Provisions

A. Contractor. Employ lead person holding a current certificate from VersaFlex Incorporated. Employ experienced superintendents and installers.

B. Schedule pre-installation conference to review installation schedule, shut down and restricted access procedures. Indicate Owner's Representative and Contractor's Superintendent.

C. Inspect joint preparation and application procedures at each installation location.

D. Schedule post-installation conference for punch list items, Owner check-off on completed work, and submittal of final billings.

1.07 Submittals

A. Submit project name and description, Owner's name and address, and name of installing Contractor to VersaFlex Incorporated.
B. See Submittals sections of Project Documents for submittal procedures.
C. Submit product data sheets for product incorporated in Work to Owner's Representative.
D. Submit shop drawings, samples, certifications, project field reports, and inspection reports as directed.
E. Submit MSDS sheets for product used in the Work.
F. Submit manufacturer's qualifications and Contractor's qualifications.

1.08 Project Conditions

A. Assure Owner's materials, equipment, and personal possessions are removed to Owner's satisfaction.
B. Sign removal exception list and retain record copy. List Owner's property to remain in place during preparation and installation of joint filling system.
C. Do not apply to horizontal surfaces with greater than 3% slope.
D. Ambient installation temperature for this specification is 60 degrees F. For use below 32 degrees F contact manufacturer for special instructions for below freezing installations. Request VersaFlex Specification section 07954 - Low Temperature Polyurea Joint Filler.
E. Allow no ponded water on surfaces receiving joint filler. Surface should be DRY.

1.09 Delivery, Storage, and Handling

A. Deliver product in manufacturer's original containers.
B. Store product in warm dry condition.
C. Replace product damaged by shipment, weather, or job conditions.

PART 2 - PRODUCTS

2.01 Manufacturer:

BESSERN Building Products, llc
1400 North Providence Road Suite 302
Media, PA 19063
(484) 234-5035
Fax: (484) 234-5037
www.bessern.com

2.02 Materials

A. Joint Filler – Quick-Fix 100 100% solids, rapid curing polyurea filler. Install by pump or cartridge. Overfill joint slightly. Shave to proper elevation after cure.

Property, Cured Sealant	
Solids Content	100%
Shore Hardness	75 D
Pot Life	1 Minute
Tack Free	5 Minutes
Traffic Ready	30 Minutes

2.03 Equipment

A. Provide pump equipment suitable for use with products specified.
B. Provide pump equipment
C. When changing mixing wands check product flow equalization prior to installing new wand by pumping small amount of product into a waste bucket.

2.04 Accessories

A. Provide bond breaker or dry sand at the bottom of random cracks.

2.05 Source Quality Control

A. List manufacturer's batch numbers for each unit of product used in Work.

PART 3 - EXECUTION

3.1 Examination
A. Organize work path to assure ease of egress from interior spaces.
B. Test all equipment and product prior to commencing work.

3.02 Preparation
A. Provide clean concrete joint surfaces.
B. Remove partially bonded joint faces as required.
C. Preparation of joints or spalls. Use dry diamond abrasive saw blade or grinding wheel to clean and profile joints or spalls. Use vacuum system attachment & vacuum when re-cutting with saw or grinder to reduce dust.
D. Secure authorization for sand blasting if used.
E. Chemical clean as last resort. Submit adequate entrapment and disposal plan.
F. Review Quick-Fix 100 Technical Data sheet for proper joint configuration, sizing, and repair methods.
G. Fill depths. Fill per Specifications and plans. If backer rod is being considered, call BESSERN for recommendations.
H. Construction and Contraction joints. Straight cut to depth of ¤ thickness of slab.
I. Random cracks. Wider than 1/16th inch. Groove to depth of 3/4 inch and top width of 1/8 inch minimum.
J. Expansion joints. Quick-Fix 100 is not for use on expansion joints.
K. Spalls. Diamond cut shoulders plumb. Form joint shoulders and fill with suitable repair product, if required. Install Quick-Fix 100 to level of adjacent concrete. See Quick-Fix 100 specification Section 03755
L. Use a clean out saw to remove debris and abrade inside joint side walls, Use a vacuum system on saw when required to reduce dust during this process. Re-vacuum joints to remove any additional residue left behind from re-sawing.
M. Mask surfaces as required.

3.03 Installation
A. Install backer rod to proper depth, only if required due to depth of crack.
B. Install Quick-Fix 100 filler. Refer to technical data sheet for additional information.
C. Fill new construction and control joints full depth, using two pass process: ¤ the depth in first pass, fill remaining cavity with second pass by slightly filling above grade. Allow to cure for at least 30 minutes before shaving or trimming to proper elevation.

3.04 Field Quality Control
A. Maintain pump and other installation equipment in proper operating condition throughout installation. Provide reserve equipment as required.
B. Do not run pump pressures over 95 psi. High delivery pressures may introduce air into product and cause bubbling in the installed filler.
C. Maintain minimum pump pressure above 85 psi.
D. Do not pump all product from containers. Cavitation will cause introduction of air into delivery lines and cause installed sealant to contain air bubbles.
E. Constant exposure to Ultraviolet light will cause color change, this will not affect products typical physical properties.

3.05 Cleaning
A. Clean spills and over-sprays as they occur.
B. Consult manufacturer’s literature and MSDS sheets for proper cleaning products and methods.
C. Clean site to Owner’s satisfaction prior to final acceptance.

3.06 Protection

A. Protect installed work prior to acceptance by Owner.
B. Provide protective clothing, gloves, and respirators for use by installers as required.

3.07 Schedules

A. Submit maintenance schedule if required.

END OF SECTION