GUIDE SPECIFICATION FOR REZI-WELD™ FLEX: SEMI-RIGID FLEXIBLE EPOXY JOINT FILLER

SECTION 03155 / 03 15 00

CONCRETE ACCESSORIES

Specifier Notes: This guide specification is written according to the Construction Specifications Institute (CSI) Format. The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project. Coordinate this section with other specification sections and the drawings.

Specifier Notes: REZI-WELD FLEX is a gray, two-part, pourable consistency, premium-grade, moisture insensitive, epoxy joint filler formulation. When cured, it is semi-rigid, with a Shore D Hardness of 60.

REZI-WELD FLEX was developed for use as a joint filler for saw cuts and construction joints in interior concrete floors subject to load bearing, wear or impact conditions, such as warehouse and industrial plants. These are floors which are typically subjected to hard-wheeled vehicles (such as forklifts).

REZI-WELD FLEX is also suitable for filling or repairing random cracks in slabs, or as an embedded control wire sealant.

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Surface preparation.

B. Application of a semi-rigid flexible epoxy joint filler.

1.02 RELATED SECTIONS

Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.

A. Section 03300 / 03 30 00 – Cast-In-Place Concrete.

1.03 REFERENCES

A. ASTM D1259 – Standard Test Methods for Nonvolatile Content of Resin Solutions.

B. ASTM C881 – Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.

C. ASTM C879 – Standard Test Methods for Release Papers Used With Preformed Tape Sealants.

D. ASTM D5329 – Standard Test Methods for Sealants and Fillers, Hot-Applied, for Joints and Cracks in Asphaltic and Portland Cement Concrete Pavements.

E. ASTM D2240 – Standard Test Method for Rubber Property—Durometer Hardness.

F. ASTM D638 – Standard Test Method for Tensile Properties of Plastics.

G. ASTM D570 – Standard Test Method for Water Absorption of Plastics.

H. ACI 302.1R – Guide for Concrete Floor and Slab Construction.

1.04 SUBMITTALS

A. Comply with Section 01330 - Submittal Procedures.

B. Submit manufacturer's product data and application instructions.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Store materials in a clean, dry area in accordance with manufacturer's instructions.

C. Keep product from freezing.

D. Protect materials during handling and application to prevent damage or contamination.

E. Mix complete units only.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Do not apply joint filler when concrete surface or air temperature is below 40° F (4° C).

B. Install product in interior applications only.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. W. R. MEADOWS®, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Website: www.wrmeadows.com.

2.02 MATERIALS

A. Performance Based Specification: Semi-rigid flexible epoxy joint filler shall be a two-component, pourable, moisture insensitive formulation and possess the following characteristics:
   1. Compliance to ACI 302.1R for joint fillers used in control and construction joints.
   2. Solids, % by weight, ASTM D1259: 100%.
   3. Tensile adhesion to concrete (75° F (24° C)), ASTM D5329: 290 psi.
   4. Shore D Hardness (7 days), ASTM D2240: 60.
   5. Shore A Hardness (7 days), ASTM D2240: 95.
   6. Tensile Strength, ASTM D638
      a. 75° F (24° C), (3 days): 660 psi.
      b. 75° F (24° C), (7 days): 770 psi.

7. Elongation, ASTM D638
   a. 75° F (24° C), (3 days): 72%.
   b. 75° F (24° C), (7 days): 53%.
8. Water Absorption (75° F (24° C) (24 hrs.)), ASTM D570: 0.56% by weight.

B. Proprietary Based Specification: REZI-WELD FLEX semi-rigid flexible epoxy joint filler by W. R. MEADOWS.

PART 3 EXECUTION

3.01 EXAMINATION

A. Examine surfaces to receive epoxy joint filler. Notify Architect or Engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.

3.02 SURFACE PREPARATION

A. Prepare joints in accordance to manufacturer's instructions.

B. Ensure all joints are level, clean, and free from frost or standing water.

C. Remove curing compounds, form release agents, old sealant and/or contaminants that may act as a bond breaker from joint surfaces by sandblasting or mechanical abrading.

D. Vacuum or blow dust away with oil-free, compressed air.

E. Apply a small amount of fine dry sand to prevent run out from cracks in the bottom of joints.

Specifier Notes: Joint filler should be deferred as long as possible to allow for minimal additional slab shrinkage, based on ACI 302.1R recommendations. Consult ACI 302.1R comments regarding concrete shrinkage, joint filling, and user expectations.

F. Ensure concrete is a minimum of 28 days old.

3.03 MIXING

A. Condition all components to 60-85° F (15° -30° C) for 24 hours prior to use.

B. Pre-mix each component.

C. Mechanically mix at slow speed (600-900 rpm) using a drill and Jiffy Blade or drum mixer for three minutes or until completely mixed while scraping the sides to ensure complete blending of components.

D. Alternatively, mix small quantities by hand for a minimum of three minutes or until sufficiently blended together using the supplied stirring stick.

E. Scrape sides of the container to ensure complete blending of the components.

F. Mix only the amount of epoxy that can be applied within the product's pot life.

G. Properly mixed product should be uniform gray in color and not show streaks.

3.04 APPLICATION

A. Apply joint filler in accordance to manufacturer's instructions.

B. Pour properly mixed product directly from can, dispense through a bulk caulking gun or positive displacement pump.

C. Fill joint full depth to top.

D. If leakage or settlement occurs, reapply as necessary prior to product becoming tack-free.

E. Cut or grind joint filler flush to floor within 24 hours after placement.

3.05 PROTECTION

A. Protect from traffice until joint filler has cured.

END OF SECTION