



**Corrosion
Engineering™**

AN ERGONARMOR COMPANY

TECHNICAL INFORMATION

CES-134

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CORROSION ENGINEERING SPECIFICATION FOR INSTALLATION

FLEXJOINT® U500 SEALANT

1. SCOPE

- 1.1 This specification governs the installation of FLEXJOINT U500 Sealant.
- 1.2 Other applicable documents include product data sheet CE-134, and drawings CED-1015, CED-1018, and CED-1020.

2. JOINT DESIGN

- 2.1 See drawings numbered CED-1015, CED-1018, and CED-1020, for design and depth of joints in brickwork, toppings and concrete. Follow procedures given in CES-307 for expansion joints in brickwork, and CES-310 for epoxy floor surfacings.

3. SURFACE PREPARATION

3.1 New Surfaces

- 3.1.1 Where new joint surfaces of concrete are clean, remove laitance and loose particles by brushing or with air blast. For formed concrete, clean the surfaces by power wire brushing or slightly sand blasting the edges of the panel, Be sure that top edges of joints are square, sharp and clean, and sides are at 90° from surface.

3.2 Old Surfaces

- 3.2.1 Rout old joint to a width approximately twice the depth of the joint. Cut joints so tips are square, 90° corners. Clean sides of joint by scraping or sandblasting. Remove loose particles by brushing or air blast. Be sure that all surfaces to be bonded are completely clean and

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sound.

- 3.3 Cover top of asphalt fiber joint filler with electrical grade (plastic) tape or other bond release agent in accordance with good joint sealing practice. Sealant should bond on two sides, not three for maximum movement capability.
- 3.4 Primer
 - 3.4.1 Primer is not normally needed on properly prepared steel or concrete substrates. When visible moisture is present on the surface of the concrete, brick or tile joint, or if steel surfaces must be protected from flash rusting due to delays between surface preparation and application of joint filler, refer to 3.4.2.
 - 3.4.2 If conditions exist as stated in 3.4.1, prime all surfaces by brushing PENNTROWEL® Epoxy Primer prior to use of FLEXJOINT U500 Sealant. Fill primed joint after primer becomes tack-free (usually 8-12 hours, but tack-free time is temperature dependent).
 - 3.4.3 Avoid excess use of primer. Wipe away any excess.
- 3.5 Taping Joint
 - 3.5.1 To insure a neat appearance use duct tape along side of joint to protect concrete, brick or tile from overflow. Take care not to allow tape to come into contact with surfaces to which the sealant must adhere. Remove tape within two hours after application.

4. INSTALLATION

- 4.1 FLEXJOINT U500 Sealant must be installed with plural component caulking equipment. This equipment can generally be categorized as bulk powered equipment, or hand loading equipment.
- 4.2 Equipment - Bulk Powered Application Equipment
 - 4.2.1 Pour contents of FLEXJOINT U500 Sealant Hardener-Part B can and FLEXJOINT U500 Sealant Resin can into the appropriate chambers of plural component pumps. The volumetric mix ratio is 1:1 (Part A : Part B). Ensure that chambers are filled according to this ratio. Do NOT mix the components prior to placing in the application equipment, or the mix will set up immediately.

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4.2.2 Bulk loading and application equipment can be obtained by contacting Graco Fluid Controls, Lily, IL 1-630-892-0860.

4.2.3 Use static mixing heads as directed by manufacturer of plural component application equipment. The mixing of Part A and Part B occurs in the static mixing head as material from each chamber is being pushed into the head. The mixed material comes out of the tip of the static mixing head. This tip must be directed (aimed) into the joint, and care must be taken to ensure the joint is neatly filled without allowing the joint filler to overflow or spill onto surfaces that are not intended to receive this material.

4.3 Equipment - Hand Loading Application Equipment

4.3.1 For smaller projects where it is not feasible to use bulk equipment, projects can be completed using specially designed empty caulking cartridges that can be filled on the job site.

4.3.2 Equipment recommended includes the following:

Guns

300 mil Twin Cartridge Caulking Gun - 505-9P

300 mil Twin Cartridge Heavy Duty Caulking Gun 505-9U

Consult manufacturer of gun equipment below for 750 mil twin cartridge guns.

Cartridges - Empty

741-G01 - 750 mil - includes, tube, plug and plunger

741-G02 - 300 mil includes, tube, plug and plunger

Ball type static mixer tube -

484-160-818 - 7 3/8" L 18 element

484-160-824 - 9 3/8" L 24 element

Connecting nut (to join tubes together)

544-7

4.3.3 The above equipment is available from Albion Engineering, Philadelphia, PA 1-215-535-3476.

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4.4 Application

4.4.1 Joint filler is ideally applied at temperatures between 32°F and 120°F (0°C - 48°C). For deep joints, fill in two closely succeeding applications to prevent surface air bubbles. Filling the joint almost full in the first pour, permitting filler to settle, then fill completely in the second pour.

4.4.2 Horizontal joints can be applied by placing tape at the start of the joint and simultaneously taping upwards as the joint is being filled.

5. CLEAN UP

5.1 Mixed material sets in minutes. Tools must be scraped clean if they have cured material on them. A strong solvent such as MEK will help remove remaining residue. Typically, static mixing heads are disposable and do not require cleaning. Clean hands with waterless hand cleaner or soap and water.

6. SAFETY PRECAUTIONS AND DISCLAIMER

6.1 FLEXJOINT U500 Sealant components, and mixes of them present a number of hazards. Read before using and follow the hazard information, precautions, and first aid directions on the individual product labels and Material Safety Data Sheets.

6.2 The statements, technical information and recommendations contained herein are believed to be accurate as of the date hereof. Since the conditions and methods of use of the product and of the information referred to herein are beyond our control, Corrosion Engineering expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information; NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE CONCERNING THE GOODS DESCRIBED OR THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be applicable when such product is used in combination with other materials or in any process. The user should thoroughly test any application before installation. Nothing contained herein should be taken as an inducement to infringe any patent and the user is advised to take appropriate steps to be assured that any proposed use of the product will not result in patent infringement.

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- 6.3 Please contact Corrosion Engineering for specific recommendations at +1-610-833-4000 or fax +1-610-833-3040.

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