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Dynapoxy EP-800 Application Instructions
PEC # 168

Product Description

EP-800 is a two-part, pour grade epoxy made specifically to protect floor joint edges against breaking (spalling) caused by the hard wheels of industrial trucks. EP-800 requires no primer under normal conditions, is 100% solids (will not shrink), and cures to a semi-rigid hardness. EP-800 is installed full joint depth in saw cut joints or 2" minimum in joints deeper than 2".

Storage

Store EP-800 in a cool, dry area and protect from freezing. EP-800 has a maximum shelf life of 12 months. If material sits for over a month, rotate cans monthly to minimize settlement.

Application

- **Surface Preparation**
  - Floors should have a minimum cure of 30 days prior to joint filling. Since concrete shrinks for many months, and shrinkage results in the widening of joints, filling should always be delayed for as long as the schedule allows. If filling in refrigerated areas (coolers), the room should be stabilized at its final operating temperature for 7-14 days or longer if possible. EP-800 is not designed for use in temperatures under 40° F. Joints should be dry and work area should be well ventilated.

  - EP-800 must bond to clean, exposed concrete for the full intended filler depth. Joints must be free of saw laitance, dirt, debris, coatings, sealers, etc. The only effective means of proper joint cleaning is the use of a dry cut saw (preferably vacuum-equipped) with a diamond blade. The blade depth should extend to the intended filler depth. Run blade against each sidewall on separate passes. After cleaning joints with saw, vacuum any remaining dust/debris from joint. Simply "raking" debris out of joint is NOT an acceptable means of joint cleaning.

- **Dispensing**
  - EP-800 can be dispensed via bulk caulking gun, power dispensing pumps, or manually poured. Other equipment needed includes, but is not limited to, proper safety gear (See MSDS), drill and mixing paddle (Jiffy or equal-no flat mortar paddles), plastic mixing pails, dry silica sand, solvent (MEK or denatured alcohol), wiper clothes, razor scraper and torch, etc.

- **Joint Filling**
  - The installer may, at his option, choose to fill the bottom of joints to prevent epoxy waste/run-through. For saw cut control/contraction joints, there are 2 acceptable fill methods:
    - Apply a 1/4" deep (maximum) layer of dry, silica sand to the base of the saw cut to fill the shrinkage crack.
    - Mix dry, clean silica sand into already blended EP-800 at a ratio of 1 quart sand to 1 gallon epoxy. This sand-modified EP-800 must be limited to the base material pass only and held at least 1/2" below the surface.

  - Through slab construction joints:
    - For through-slab construction joints (or joints exceeding 2" depth), the installer may use silica sand or backer rod IF it is held down at least 2" from the top. Contact Pecora Technical Service for information on special conditions.

- **Joint Filling, continued**

  - General installation technique
    - Install first pass of EP-800 to within 1/2" of floor surface, and allow to sit for 60-90 minutes. This will allow entrapped air bubbles to rise and sinker areas to be discovered. Make second pass and overfill joint (crown). DO NOT USE SILICA-MODIFIED EP-800 FOR SECOND PASS. Allow EP-800 to cure into a full solid, usually 6-10 hours depending on temperature. Flush bulk guns with solvent regularly to prevent set-up in barrel or tip. If gun gets warm, dispense contained EP-800 promptly.

- **Temperature Effects:**

  - Like most epoxies, EP-800 is affected by temperature. In warm or hot weather, EP-800 will have a shorter pot life. To extend the working time, place the unopened A (resin) can in ice water for 30 to 45 minutes before mixing. In cooler weather, EP-800 will have a longer pot life. To make it cure faster, warm material or allow to sit in mass after mixing for several minutes.

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- **Finishing Top of Installed Joint Surface**

  - To be effective as an edge-protector, EP-800's final profile must be flush with the floor surface. This is achieved by razoring-off the overfill crown AFTER the EP-800 has fully cured into a solid. This may require second day razoring dependent upon ambient temperatures during cure. Use tile removal razor scraper or similar. If EP-800 is difficult to razor or ratchets while razoring, apply a small amount of heat (torch, heat gun, etc.) just prior to shaving. High ambient temperatures above 90 F will generally require surface razoring 4 hours after installation while low temperatures may require an overnight curing period before razoring.

  - **Low Spots**
    - Low spots can occur due to sag or epoxy loss through cracks at bottom of joint. Do not try to apply a thin "cap bead" to cured EP-800. It will not bond. The low spots must be sawn out to a minimum depth of 1/2" and refilled with additional EP-800.

- **Clean Up**

  - Use MEK or denatured alcohol to clean all tools. Remove spills on floor by scraping or with MEK/denatured alcohol. The floor, depending on temperature, can usually be opened to light traffic within 6-8 hours and heavy traffic in 8-12 hours. If the floor is to be acid-etched or coated, allow approximately 7 days cure for EP-800. (A chemical compatibility test/sample installation is also recommended prior to use). Once cured, mechanical scrubbing or most cleaners do not affect EP-800. Stains left on joint edges from overfilling are difficult or impossible, to remove. Wire brushing with solvent/light polishing/grinding may be somewhat successful.

- **Filler / Concrete Separation:**
  - Since slabs continue to shrink long after the filler installation, EP-800 may separate adhesively or cohesively. This is not a failure of the EP-800. This separation is designed into the product to prevent concrete spalling in the event of excessive movement due to concrete shrinkage.
    - Correction method: Saw cut out effected area to ½" depth and re-apply EP-800 flush with surface.

- **Color Changes:**
  - Certain lighting systems can cause EP-800 and other fillers to change color. This color change will not affect EP-800's performance but it can be aesthetically objectionable. If color change takes place, verify that UV is the cause by running a sample of EP-800 in an area not exposed to the lights. Removing and replacing discolored EP-800 will merely result in a color change of the second installation. Color difference will generally become less noticeable with the passage of time and repeated floor scrubbing.

Typical Joint Profile