

Kerapoxy® IEG repairs in industrial and commercial applications



TECHNICAL BULLETIN 010808-TB

Do industrial and commercial applications require any special preparation before repairing with Kerapoxy IEG?

MAPEI proudly offers *Kerapoxy IEG*, a water-cleanable 100%-solids epoxy grout, which exhibits superior chemical and stain resistance characteristics.

Kerapoxy IEG is ideal for installations requiring high acid and chemical resistance, such as commercial kitchens, dairies, bottling plants, meat processing plants, breweries, bakeries, supermarkets, restaurants, hospitals, schools, research laboratories and veterinary clinics. (Please refer the Technical Data Sheet for *Kerapoxy IEG* regarding specific chemical resistance and cure times before exposure.)

To accommodate small windows of time for repairs to be completed, *Kerapoxy IEG* has been formulated to receive light foot traffic in as little as 5 hours and heavy foot traffic in as little as 8 hours.

When the previous installation has been contaminated with fatty acids, chemicals or cleaners, complete removal of grout and mortar from the grout joints is recommended. A thorough wash of the installation with degreaser or neutralizer and a subsequent rinsing are required. This applies to all repair/replacement methods mentioned below.

Preparation for Spot Repairs

Using an electric industrial heat gun (at 1,200 watts; 500°F or 260°C), slowly apply heat to the repair area to soften the existing grout out of the joint. This method requires time, but yields very effective results for repairs. This method is not recommended for complete area replacements. Always be mindful to protect all other surfaces from the high heat of the heat gun.

Note: While no liquid chemicals or dust will be present with this repair process, the fumes of the heated epoxy should be dissipated by means of adequate ventilation.

Preparation for Complete Replacement

Before beginning anything, always verify acceptable results of any method with a small test area in an inconspicuous area before continuing with the entire project. Before beginning, keep in mind the following tips, whether chemical or mechanical extraction methods will be used:

- Take care to protect any and all surrounding surfaces potentially exposed to airborne debris, dust or chemicals that may be introduced during the extraction process.
- Ensure ventilation is adequate to keep air moving, thereby preventing a buildup of dust or chemical fumes.
- Ensure that when the grout is removed, 2/3 the thickness of the tile is available to receive the replacement grout. (Verify that tile is well-bonded and that mortar is not compromised by fatty acids or cleaning chemicals.)

Mechanical Removal (preferred method)

Utilize a dustless vacuum attached to an electric saw (either a right angle grinder or small circular saw) with a diamond cutting blade. (Always monitor filter cleanliness in the vacuum to achieve the maximum benefit and suction.) Simply follow the grout lines and remove all existing grout.

Some touchup may be required if all grout was not removed. Missed grout can be removed with an angle grinder with a vacuum attached, or with a sharp utility knife.

If all dust-eliminating precautions are followed, this process can be successfully performed in an active, working environment.

While mechanical methods are always preferred and yield the quickest extraction, take care not to damage the adjacent tile.

Chemical Removal (alternate method)

1. Apply a nonflammable, water-cleanable epoxy remover to the grout joints. (**Note:** Always follow the chemical manufacturer's safety guidelines and warnings regarding personal and property protection as well as proper ventilation.)
2. Allow sufficient dwell time on the joints to adequately soften the grout. This time can take upwards of two hours to present effective results depending on the product available for the removal of the grout.
3. Using a margin trowel, manual grout saw or narrow wire brush, clear out the grout joints from at least 2/3 of the tile depth. (Wire brushes may scratch some tile surfaces; verify compatibility before proceeding with complete extraction.)
4. Wash with a solution of trisodium phosphate to completely neutralize the epoxy remover to a pH of 7. **Warning:** When using chemical solutions and neutralizing agents, always wear eye protection and gloves.
5. Go over the entire area with a wet/dry vacuum, taking care to remove any loose areas of the grout that may remain.
6. Thoroughly rinse the area with clean, potable water. Remove any excess moisture from the grout joints with a vacuum or a clean dry towel.
7. Allow joints to completely dry.
8. Double-check the joints to be grouted again and remove all final residues.

The repair procedures outlined in the steps above also can be used for MAPEI's other epoxy grouts – *Kerapoxy* and *Opticolor*™.

For the most up-to-date product data on these as well as all other MAPEI products, please visit www.mapei.com.

Jobsite conditions will vary and may present circumstances not covered in this bulletin. Please contact MAPEI Technical Services with any additional questions.

