

EPOXIES FOR TOWERS

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In my business as a masonry restoration contractor, I used many types of anchor systems. I also use many types of epoxies.

The anchors I liked best and were specified by the engineers were made by Rawl. For a tower base, you would want as long an anchor as possible, and obviously, a diameter similar to the specified J bolt size.

Reason for wanting as long an anchor as possible is to have as much concrete mass above/around the bolt.

As for the epoxies, I've used two basic types, Hi-Mod and Lo-Mod. The Modulus refers to its flowing or clumpiness. Sika is the brand I used most. Comes in two parts. Also comes in both Modulus types.

If you drill a hole into concrete, and wish to smear the epoxy around the expansion bolt, then you want an epoxy that does not flow or drip. This type comes in two cans, you mix the appropriate proportions, allow to sit for the instructed amount and then basically glob the epoxy onto the expansion bolt. The other type of epoxy frequently comes in a caulking gun type tube that has both activator and product in the same tube but separated by a thin foil barrier. You mix this type in that tube by pushing the attached plunger back and forth the instructed number of times. The bolt gets inserted into the concrete, and then you use the plunger to drip the epoxy into the hole and let it seep down around the expansion bolt.

Each Mod has its advantageous and disadvantages. The glumpy type (glumpy is a technical term <wink>_ can be mixed to the desired amount. The drippy type is either used all at once or throw the rest away.

Now as for purchasing...I bought my supplies from a firm that specialized in caulking and epoxies.

Hilti has its version (read higher priced) and is sold at special Hilti stands in selected Home Depots.

Check your Yellow Pages for locations near you.

I never trusted using simple threaded rod and epoxy in the type of work I did, securing large sections of stone to Chicago Landmarked building. I only used expansion bolts.

Hardware store threaded rod is of unknown strength. I would not use it on my own tower. Expansion bolts come with an engineering spec sheet.

All that being said...I have no relationship with the products/brands mentioned above, just years of experience.

If I was to anchor a tower base to an existing concrete base, I would use this system.

*The message was at the
TowerTalk mailing list*

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