

Resin Sampling

It is important to take resin samples and to send them out periodically for analysis. This will enable the plant to follow the normal degradation of the resins and to catch fouling problems before they become serious. For laboratory purposes, a quart size sample is usually sufficient, two quarts for mixed bed samples.

The recommended frequency of testing is once per year for softener resin more than five years old. Demineralizer resin should be sampled and tested every six months or annually once it is two or three years old. Some plants retain samples of the unused or original resin to use for comparison purposes later on.

The best way to get a sample of resin is with a thin-walled plastic tube or PVC pipe, about 1 in. in diameter.

A recommended sampling procedure is as follows:

Before taking the sample, drain the bed (preferably a freshly regenerated bed) until the water level drops just beneath the resin level. Slowly force the tube through the resin bed, taking care not to damage the distributor or gravel subfill. When the bottom of the vessel is reached, stopper or cap the tube and withdraw it slowly.

The sample should be wet or moist with the free liquid poured out.

The sample container should be clearly marked with as many of the following important bits of information as possible:

- Name and address of the plant
- Name and telephone number of the person in charge
- Number of the unit sampled and the date the sample was taken
- Condition of resin: Exhausted or Regenerated
- Type of service (softening, two-bed deionization, mixed-bed polishing)
- Resin type and the manufacturer's designation, if known
- Date the resin was installed or rebedded
- Whether or not resin has been added as makeup for losses
- Nature of the plant problem

Some of these items, of course, are better explained in a covering letter. The plant name and unit number should always be on the bottle, plus the name and telephone number of the person to contact for questions.

