

PolySeed®

Technical Report

Aeration Stones/Diffusers

Aeration Stones: Q & A

Question:

Can the aeration stones I use to aerate my PolySeed solution cause contamination? If so, how do I clean the stones to prevent them from ruining my tests?

Answer:

Yes, it is possible for aeration stones to cause contamination but unfortunately there's NO way to clean them. The only way to be 100% certain that aeration stones are completely free of contamination is to use brand new aeration stones and always use separate aeration stones for each step of the test

Although brand new aeration stones are ideal, it is possible to re-use the stones safely with very little risk of contamination (see Aeration Stone Tips below). However, please note that due to cross-contamination issues, it is NEVER safe to use one aeration stone for multiple purposes. The only way to prevent cross-contamination from aeration stones is to use separate aeration stones and tubing for each test step.

Aeration Stone Tips

Re-Use...But Don't Over-Use!

Replace aeration stones on a regular basis

Although it is safe to use aeration stones more than once, the potential for mold spore growth during storage makes regular replacement important.

Replacement frequency depends on testing volume: the higher the testing volume, the more often aeration stones should be replaced.

Regardless of testing volume, it is recommended to replace aeration stones at least once per month.

Blow Out Excess Water!

Aeration stones should be as dry as possible prior to storage

To re-use aeration stones, it is recommended to always blow excess moisture from the stones after aeration. Doing so will reduce the likelihood of mold spore growth on the stones during storage.

To blow excess moisture from stones after aeration, remove stones and tubing from the solution but allow the air pump to continue running.

For maximum benefit, allow the air pump to continue running for at least 30 minutes to one hour after use. Stones and tubing should be completely dry prior to storing in unsealed Ziplock bags.

No Sharing Please!

Use two sets of aeration stones and tubing

The BODs test requires two sets of aeration stones and tubing: one set dedicated to aerating dilution water, the other dedicated to aerating the seed solution.

Store aeration stones and tubing in separate, unsealed bags; clearly label bags with "seed solution" and "dilution water" to avoid mix-ups.

Replace both sets of aeration stones and tubing at least once per month to avoid contamination from mold growth.