



Empore™ Filter Aid 400

Instructions for Use General Product Characteristics

Description

CDS Empore™ Filter Aid 400 has been shown to improve flow rates and recoveries for separations and filtration of water samples containing suspended solids.

When placed on top of Empore extraction disks or a primary filter to a depth of about one centimeter, Empore Filter Aid 400 acts as a depth filter to inhibit the migration of suspended solids to the surface of the disk. This reduced extraction time and improves flow rates.

Comprised of glass beads with a typical diameter of 40 microns, Empore Filter Aid 400 is nonporous, inert and resistant to leaching, providing low interferences and more consistent recoveries.

Empore Filter Aid 400 is as much as 13 times more dense than other filter media. As a result of this high density, the glass beads settle quickly when the water sample is added. This prevents most suspended solids from reaching the Empore disk and improves filter efficiency, thus increasing flow rates.

Specifications

Size: One bottle contains 1.5 kilograms and comes with a convenient scoop.

Use: Approximately 15 grams will cover a 47 mm disk one cm deep.

Approximately 40 grams will cover a 90 mm disk on cm deep.

Material: Glass beads; average diameter 40 microns.

CDS Empore™ Sample Preparation Products are intended for solid phase extraction during scientific research only. These products are not intended or warranted for use in medical devices or in assessment and treatment of clinical patients. CDS doesnot warrant the use of these products for any application outside the products' intended

More information

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Suggested Application Procedures

CDS Empore™ Filter Aid 400 is a high density glass bead product intended for use as a filtration aid when extracting samples with high particulate content using Empore extraction disks.

Preparation

- Assemble 47 mm or 90 mm glassware.
- Pour beads uniformly on disk surface to about 1.0 cm depth. (Approximately 15 gms for 47 mm disks and 40 gms for 90 mm disks.)

Pre-Wash

- Add about 20 mL of elution solvent to the bed. **NOTE: All solvent volumes should be sufficient to submerge the bead bed.**
- Draw a small amount of solvent through the disk and release vacuum. Allow to soak for approximately one minute.
- Turn on vacuum and draw remaining solvent through the disk and let vacuum continue to draw until disk has dried.

Condition

- Add about 20 mL methanol to the reservoir.
- Draw a small amount through the disk with the vacuum. Release the vacuum and allow the disk and bead bed to soak for about one minute.
- Draw the methanol down with vacuum to just above the level of the bed. **It is critical that a layer of methanol remain above the disk.** With bed in place, the level should be maintained just above the surface of the bead bed.
- Add 20 mL reagent water to the reservoir. With vacuum on, draw level of water/methanol down, to just above the level of the bed. **A layer of fluid must remain on the surface of the disk.**
- Turn off vacuum.

Extraction

- Prepare the particulate-containing water sample according to the conditions prescribed in the method to be used.
- Decant the sample slowly down the wall of the reservoir to minimize disruption of the bed. Turn on the vacuum and proceed with the extraction and elution as described in the method.

Filter Aid 400 Disposal

When elution is complete, dispose of beads as appropriate:

- If materials extracted were non-hazardous, dispose in a manner appropriate for laboratory glassware.
- If materials extracted contained hazardous materials, dispose of as outlined by federal, state and local regulations governing the disposal of those hazardous materials.