



Empore™

High Performance Extraction Disk Plates

Deep Well Plates

General Information

Empore™ Deep Well Plates are designed for applications in which larger sample volumes need to be processed. The well volume of the deep well plate is 2.5 mL as opposed to the 1.2 mL well volume of the standard Empore plates. The deep well plates save time by eliminating the need to add successive aliquots of liquids.

Product Information

Empore deep well plates are molded from a polypropylene resin suggested for medical and pharmaceutical applications. They are available with the same sorbents and filter material used in the standard 96 well Empore solid phase extraction and filter plates (see reverse side). Increased wash volumes are recommended when using deep well plates for solid phase extraction to ensure removal of analytes that might remain on the wall of each well.

Deep Well Plate Volume Recommendations for Solid Phase Extraction

Step 1: Condition Sorbent

Condition the Empore deep well plate in the same manner as the standard plate to activate the sorbent. Add 100 μL of methanol or acetonitrile, wait 30 seconds, and add 200 μL of buffer or water.

Step 2: Load Sample

With a working well volume of 2.5 mL, the Empore deep well plate can accommodate larger volume samples and increased dilution of difficult to process samples.

Step 3: Wash

Wash volumes should be increased when using deep well plates compared to standard well plates. This will ensure adequate analyte and interference removal from the walls of the wells.

- A first wash of 750-1000 μL of water or buffer is suggested to remove proteins.
- A second wash of 750-1000 μL of organic-containing solution is suggested to remove other potential interferences.

Step 4: Elute

Insert a collection plate in the vacuum manifold or other equipment. Load 100-150 μL of elution solvent into each well of the deep well plate and process with vacuum, pressure or centrifugation. Elution volumes are the same for both the standard and deep well plates.



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Q. What vacuum level should be used when processing samples through the deep well extraction disk plate?

A. The recommended vacuum levels are the same for both standard and deep well Empore plates. An initial vacuum setting of 5 to 10 in Hg (0.17 to 0.34 bar) is recommended. Increase vacuum to 15-20 in Hg (0.51-0.68 bar) to establish optimal flow rates (sample loading and elution steps should be evaluated for flow rate vs. compound recovery).

Q. Is this product compatible with standard vacuum manifolds in use today?

A. Manifolds supplied by various plate manufacturers are generally

specific to the design of their plate and cannot generally be used with plates from other manufacturers. Since the Empore disk plate differs in design from plates offered by other manufacturers, it may require the vacuum manifold that is supplied by 3M (the Cat. 610 Vacuum Manifold).

Q. What sorbent/filter options are available with the deep well plates?

A. Empore™ Deep Well Plates are available with the same sorbent and filter options as the standard Empore 96 well plates.

Sorbent & Filter Plates	Standard Empore™ Plates (1.2 mL well volume)	Deep Well Empore™ Plates (2.5 mL well volume)
C2-SD	Cat. 6011(SD)	Cat. 6311(SD)
C8-SD	Cat. 6014(SD)	Cat. 6314(SD)
C18-SD	Cat. 6015(SD)	Cat. 6315(SD)
Universal Resin	Cat. 6045(SD)	Cat. 6345(SD)
MPC-SD (Mixed Phase Caution)	Cat. 6030(SD)	Cat. 6330(SD)
Filter Plate	Cat. 6065	Cat. 6360

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