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Syringeless Filters

Whatman™ Mini-UniPrep™ G2 Syringeless Filter

The Whatman™ Mini-UniPrep G2 syringeless filter simplifies UHPLC/HPLC sample preparation over the traditional syringe filter method. The Mini-UniPrep G2 is an all-in-one integrated filter that replaces the syringe, syringe filter, glass vial, cap, and septum (Fig. 1). After the filtration step Mini-UniPrep G2 can be placed directly into the autosampler in readiness for injecting sample into the UHPLC/HPLC instrument.



Fig. 1. Mini-UniPrep G2 replaces multiple consumables.

Features of the Mini-UniPrep G2:

- Consists of an integral borosilicate glass autosampler vial, plunger with attached filter membrane, and septum/cap
- Filters samples faster compared to the traditional syringe filter method
- Glass construction minimizes the risk of leachables contaminating the sample
- Designed to be loaded directly into the autosampler
- Includes visual indication that the sample has been filtered
- Minimizes instrument downtime due to unfiltered samples
- Wide range of membranes with 0.2 and 0.45 µm pore sizes to meet specific sample filtration requirements

The Mini-UniPrep G2 includes an integral borosilicate glass vial housed within the plunger (Fig. 2) and a borosilicate glass chamber for holding the unfiltered liquid. During the filtration step, the plunger is compressed into the glass chamber containing the unfiltered liquid. As the plunger travels downward, liquid flows through the filtration membrane to the top of the plunger and drops into the glass collection vial housed within the plunger (Fig. 3). Therefore, the sample only contacts plastic for a very short period of time, that is only while the plunger is being compressed through the unfiltered liquid. Once compressed, the Mini-UniPrep G2 is ready to be loaded directly on to the autosampler.

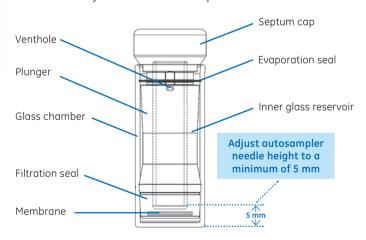
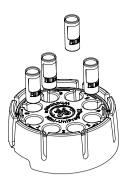
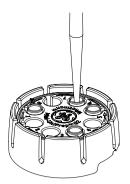


Fig. 2. Mini-UniPrep G2 Syringless Filter.

Mini-UniPrep G2 comes in a number of configurations including slit septa for those autosamplers and robotic systems that require a slit septa. It is also available in amber for light sensitive samples. Amber Mini-UniPrep G2 meets the requirements of the US Pharmacopeia (USP) and European Pharmacopeia (EP) for light transmission.



Step 1Insert up to 8 glass chambers into the Multi Compressor tray.



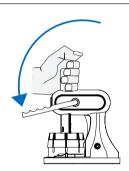
Step 2
Dispense the sample into the glass chamber taking care not to overfill. The Mini-UniPrep G2 glass chamber has a maximum capacity of 500 µl indicated by a printed "Fill Line" on the glass chamber. Minimum sample volume that may be added to the glass chamber is 220 µl in order to collect 50 µl in glass insert.



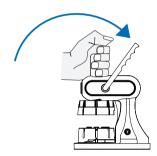
Step 3Place plunger(s) into the neck of the glass chamber(s). Do not attempt to depress further than the neck of the glass chamber.



Step 4 Place the tray into position on the Multi Compressor using the guide ribs for placement. Ensure tray is securely in place.



Step 5Steadying the Multi Compressor with the left hand as shown, pull the handle towards the user to fully depress the plunger(s) into the chamber(s).



Step 6Steadying the Multi Compressor with the left hand as shown, rotate the handle back to original position enabling the tray to be removed. Remove Mini-UniPrep G2 device or devices.

Fig. 3. How to use the Mini-UniPrep G2 Multi Compressor.

Technical specifications

| • | | |
|---|--|--|
| Dimensions | Once compressed, equivalent in size to 12 mm × 32 mm vial | |
| Materials of construction | Chamber: Borosilicate glass Plunger outer housing: Polypropylene Plunger inner storage vial: Borosilicate glass Filter medium: As specified Septa: Silicone with PTFE liner Cap: polypropylene | |
| Maximum operating temp. | 50°C (122°F) | |
| Filtering capacity | Chamber (unfiltered sample): 500 µl | |
| | Inner storage vial (filtered sample) : 330 µl | |
| | Recommended minimum filtering volume: 220 µl placed in the chamber to obtain 50 µl in inner storage vial | |
| Nominal force needed to compress | Approx. 11.3 kg (25 lbs) | |
| Autosampler compatibility | Any autosampler that accommodates standard 12 mm × 32 mm profile vials | |
| Autosampler needle height adjustment | 5 mm from bottom of Mini-UniPrep G2 (see Fig 2) | |

Liquid storage capacity

| Volume (µl) | Height of liquid in inner glass reservoir (mm) | | |
|-------------|--|--|--|
| 50 | 4.3 | | |
| 100 | 7.0 | | |
| 150 | 10.3 | | |
| 200 | 12.4 | | |
| 250 | 15.4 | | |
| 300 | 18.4 | | |
| 350 | 21.4 | | |
| 410 (max.) | 25.0 | | |

Ordering Information

| Membrane | Pore size | Housing | Cap | Code number 100/pack | Code number 1000/pack | Code number Starter pack (100/pack + Hand Compressor) | |
|--|-------------|-------------|-------------|-------------------------|--------------------------|--|--|
| PTFE* | 0.2 µm | Translucent | Normal | GN203NPEORG | GN503NPEORG | GN203NPEORGSP | |
| PTFE | 0.2 µm | Translucent | Slit septum | GS203NPEORG | GS503NPEORG | GS203NPEORGSP | |
| PTFE | 0.2 µm | Amber | Normal | GN203APEORG | - | GN203APEORGSP | |
| PTFE | 0.45 μm | Translucent | Normal | GN203NPUORG | GN503NPUORG | GN203NPUORGSP | |
| PTFE | 0.45 μm | Translucent | Slit septum | GS203NPUORG | GS503NPUORG | GS203NPUORGSP | |
| PVDF* | 0.2 µm | Translucent | Normal | GN203NPEAQU | GN503NPEAQU | GN203NPEAQUSP | |
| PVDF | 0.2 µm | Translucent | Slit septum | GS203NPEAQU | GS503NPEAQU | GS203NPEAQUSP | |
| PVDF | 0.2 µm | Amber | Normal | GN203APEAQU | - | GN203APEAQUSP | |
| PVDF | 0.45 μm | Translucent | Normal | GN203NPUAQU | GN503NPUAQU | GN203NPUAQUSP | |
| PVDF | 0.45 µm | Translucent | Slit septum | GS203NPUAQU | GS503NPUAQU | GS203NPUAQUSP | |
| RC* | 0.2 μm | Translucent | Normal | GN203NPERC | GN503NPERC | GN203NPERCSP | |
| RC | 0.45 µm | Translucent | Normal | GN203NPURC | GN503NPURC | GN203NPURCSP | |
| Nylon | 0.2 µm | Translucent | Normal | GN203NPENYL | GN503NPENYL | GN203NPENYLSP | |
| Nylon | 0.2 μm | Translucent | Slit septum | GS203NPENYL | GS503NPENYL | GS203NPENYLSP | |
| Polypropylene | 0.2 µm | Translucent | Normal | GN203NPEPP | GN503NPEPP | GN203NPEPPSP | |
| Polypropylene | 0.2 µm | Translucent | Slit septum | GS203NPEPP | - | GS203NPEPPSP | |
| Glass fiber | 0.45 μm | Translucent | Normal | GN203NPUGMF | GN503NPUGMF | GN203NPUGMFSP | |
| Glass fiber | 0.45 µm | Translucent | Slit septum | GS203NPUGMF | _ | GS203NPUGMFSP | |
| Hand Compress | sor | | | | | | |
| Description | | | | | | | |
| Mini-UniPrep G2 Hand Compressor 1/pack | | | | | | | |
| Multi-Compresso | r | | | | | | |
| Description | | | | | | | |
| Mini-UniPrep G2 M | MUPG2MCPWC8 | | | | | | |
| Mini-UniPrep G2 Multi-Compressor Tray 1/pack | | | | | | MUPG2MCWT8 | |

 $^{{\}rm *PTFE = polytetrafluoroethylene; PVDF = polyvinylidene \ difluoride; RC = regenerated \ cellulose}$

For local office contact information, visit www.gelifesciences.com/contact

www.gelifesciences.com/LaboratoryFiltration

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