

don't let a grain be the spanner in your frit

In today's Analytics samples become smaller and are more precisely analyzed which increases the demand with the instruments in Analytics. This is especially true for the current development in HPLC. Because of the smaller particle size of the stationary phase down to $1.8 \mu\text{m}$, the purity of the sample becomes increasingly important. Because of smaller particle sizes, the frits, which keep the phase in the columns, have smaller pore sizes and therefore plug much faster.

Therefore filtration of the sample before injection becomes a necessary routine. Until now a filter with $0.45 \mu\text{m}$ pore size was considered sufficient for HPLC phases with $3 \mu\text{m}$ particle size. For the modern UPLC phases with a particle size smaller than $3 \mu\text{m}$, filtration with a filter of $0.2 \mu\text{m}$ pore size is considered necessary.



The same is true for GC, where particles can be caught with the choice of the proper liner with quartz wool. However the quartz wool should be used as a "Backup" system rather than as a means of filtration.

A good membrane filter should only be used once to avoid sample carry over of critical samples; in trace analysis the forerun, or more trivial, the first few drops are rejected. The size of the filter is defined by the volume of the filtrate and its load of floating particles. For economic reasons, it is advisable to use the smallest possible filter diameter.

The filter's resistance to pressure is important because this allows faster filtration at higher pressure, for if the membrane bursts, the work restarts. The sealing ring stabilizes the housing and thanks to a colour coding membrane type and porosity are easily identified.






For analytical analysis the regular pore size is $0.45 \mu\text{m}$; for critical analysis or a so called cold sterilisation we recommend $0.2 \mu\text{m}$. The membrane is the heart of the filter. It is sealed into a polypropylene housing. This housing has proved resistant against all common solvents because of the brief time the filtrate is in the filter itself. The choice of membrane should be based on experience and theoretical considerations. In brief, for organic solvents a PTFE (P) membrane should be used and for waterbased or biological solvents a Regenerated Cellulose (RC) membrane

Often, however, only a test will tell which filter is best to be used and in our opinion testing a filter with your sample before purchase is a requirement. We are happy to send you samples for an evaluation.

Are you looking for the proper filter for your application? Then write to us.

So that the grain does not become the spanner in your analytical work but is withheld in the filter.

HPLC syringe filters: PTFE oder Regenerated Cellulose (RC) Membrane

<p>with PTFE Membrane, 0.2 μm Pore Size</p> <p>For the filtration of</p> <ul style="list-style-type: none"> - solvents - organic solvents - strong acids and bases - aromatic compounds 	<p>with RC Membrane, 0.2 μm Pore Size</p> <p>better chemical resistance than Cellulose Acetate</p> <p>For the filtration of</p> <ul style="list-style-type: none"> - aqueous solvents - proteins - peptides and other biomolecules
 <p>8825C-P-2</p> <p>25 mm Cronus HPLC Filter Membrane: PTFE Pore Size: 0.2 μm</p> <p>EUR 129.00/pack of 100 pcs.</p>	 <p>8825C-RC-2</p> <p>25 mm Cronus HPLC Filter Membrane: RC Pore Size: 0.2 μm</p> <p>EUR 141.00/pack of 100 pcs.</p>
 <p>8830-P-2</p> <p>30 mm Titan HPLC Filter Membrane: PTFE Pore Size: 0.2 μm</p> <p>EUR 153.00/pack of 100 pcs.</p>	 <p>8830-RC-2</p> <p>30 mm Titan HPLC Filter Membrane: RC Pore Size: 0.2 μm</p> <p>EUR 149.00/pack of 100 pcs.</p>
<p>all prices net; quantity breaks applicable; excl. VAT; excl. EUR 10.00 postage and packaging</p>	
<p>Special offer as long as supplies last</p> <p>25 mm Titan Filter with Regenerated Cellulose Membrane 0.2 μm Pore Size</p> <p>detailed information: www.infochroma.ch/filter</p>	 <p>8825-RC-2</p> <p>25 mm Titan HPLC Filter Membrane: RC Pore Size: 0.2 μm</p> <p>EUR 115.00/pack of 100 pcs.</p> <p>lowest net price, no further discounts applicable; excl. VAT; excl. EUR 10.00 postage and packaging</p>

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