

### Minisart High Flow Rate Filters



Disposable **Minisart** Syringe Filters for particle removal, ultracleaning and prefiltration. Ready-to-use units with 0.45  $\mu\text{m}$ , 0.8  $\mu\text{m}$ , 1.2  $\mu\text{m}$  or 5  $\mu\text{m}$  pore size membrane filters. They allow rapid clarification or ultracleaning of up to 100 ml liquid volumes or can be mounted directly in front of an 0.2  $\mu\text{m}$  Minisart to act as prefilter and increase the total filterable volume. The high flow rates of these units result from the large filter area and the very low flow resistance of the filter support, which is demonstrated by the relative constant increase in the flow rate with increasing pore size. These flow rates contribute to user comfort by lowering the pressure required for filtration. **Minisart-GF** contains a glass fibre filter with a retention efficiency of 98% for 0.7 $\mu\text{m}$  spherical particles. It is very useful when relatively dirty solutions are to be clarified, or as a prefilter on an 0.2  $\mu\text{m}$  or 0.45  $\mu\text{m}$  Minisart. **Minisart-plus** units also contain this glass fibre filter, but as prefilter on an 0.45  $\mu\text{m}$  or 1.2  $\mu\text{m}$  membrane, for higher total throughputs.

#### Specifications for Minisarts, Minisart-plus and Minisart-GF

<i>Bubble points</i>	Min. values, water wetted, 1.6 bar (0.45 $\mu\text{m}$ ), 0.8 bar (0.8 $\mu\text{m}$ ), 0.7 bar (1.2 $\mu\text{m}$ ), 0.4 bar (5 $\mu\text{m}$ ), 0.5 bar (Minisart-GF)
<i>Colour coding</i>	Yellow (0.45 $\mu\text{m}$ ), green (0.8 $\mu\text{m}$ ), red (1.2 $\mu\text{m}$ ), brown (5 $\mu\text{m}$ ), opaque (Minisart-GF)
<i>Connectors</i>	Female Luer lock inlet, male Luer lock outlet (the 0.45 $\mu\text{m}$ unit is also available with a male Luer outlet)
<i>Cytotoxicity</i>	No inhibition with MRC-5 human lung cells
<i>Filter diameter</i>	26 mm
<i>Filtration area</i>	5.3 cm <sup>2</sup>
<i>Flow rate</i>	Typical values for water at $\Delta p = 1$ bar (100 kPa), 180 ml/min (0.45 $\mu\text{m}$ ), 350 ml/min (0.8 $\mu\text{m}$ ), 400 ml/min (1.2 $\mu\text{m}$ ), 500 ml/min (5 $\mu\text{m}$ ), 600 ml/min (Minisart-GF)
<i>Hold-up volume</i>	0.1 ml
<i>Limits for use</i>	Max. recommended operating pressure, 4.5 bar (450 kPa). Housing resists bursting up to at least 6 bar (600 kPa). Max. temperature 50°C
<i>Materials</i>	Cellulose acetate membrane (except Minisart-GF).
<i>Glass fibre</i>	filter (Minisart-GF and Minisart-plus). Cyrolite (CY/RO Industries trademarked MBS-copolymer) housing

#### Order Numbers for Standard 0.45 $\mu\text{m}$ to 5 $\mu\text{m}$ Minisarts

a) <b>Sterile</b> , individually packed (packs of 50):	
<b>F103/ML</b>	0.45 $\mu\text{m}$ , with male Luer outlet
<b>F103/L</b>	0.45 $\mu\text{m}$ , with Luer lock outlet
<b>F105</b>	0.8 $\mu\text{m}$ , with Luer lock outlet
<b>F109</b>	1.2 $\mu\text{m}$ , with Luer lock outlet
<b>F111</b>	5 $\mu\text{m}$ , with Luer lock outlet
b) <b>Non sterile</b> , bulk packed, (packs of 500)	
<b>F104/ML</b>	0.45 $\mu\text{m}$ , with male Luer outlet
<b>F104/L</b>	0.45 $\mu\text{m}$ , with Luer lock outlet
<b>F106</b>	0.8 $\mu\text{m}$ , with Luer lock outlet
<b>F110</b>	1.2 $\mu\text{m}$ , with Luer lock outlet
<b>F112</b>	5 $\mu\text{m}$ , with Luer lock outlet

#### Minisart-plus units

a) <b>Sterile</b> , individually packed (packs of 50)	
<b>F103/L/PLUS</b>	0.45 $\mu\text{m}$ , with Luer lock outlet
b) <b>Non sterile</b> , bulk packed, (packs of 500)	
<b>F104/L/PLUS</b>	0.45 $\mu\text{m}$ , with Luer lock outlet
<b>F110/PLUS</b>	1.2 $\mu\text{m}$ , with Luer lock outlet

#### Minisart-GF units

a) <b>Non sterile</b> , bulk packed	
<b>F288</b>	Luer lock outlet (pack of 50)
<b>F289</b>	Luer lock outlet (pack of 500)