

PERFORMANCE SPECIFICATIONS

Properties of the FILOPUR® C1 Filter

FILOPUR® drinking water filters decisively improve the quality of drinking water by filtering organic and inorganic harmful substances as well as moribific bacteria, fungi and viruses. However, the natural salts and minerals which are essential to our organism are not removed by this process; neither does the product become a sterile filtrate.

FILOPUR® filters stand out for their long life and their simple handling. Their quality and filtering performance correspond to the latest Swiss standards and regulations of the WHO. This high level is the result of the know-how acquired in more than 25 years and is constantly controlled and confirmed by expertises of independent institutes.

REMOVAL OF CONTAMINANTS (Test results)

CLARIFICATION AND DECOLORIZATION:

Visual turbidity are completely eliminated

<i>Product</i>	<i>Entering concentration</i>	<i>Retention capacity</i>
• Extinction	240 nm	over 90%
• Potassium permanganate	9,0 mg/l	over 90%

REDUCTION OF UNPLEASANT TASTES AND ODOURS:

• fuel oil	0,5 mg/l	90 to 95%
• gasoline	1,0 mg/l	free of odour or taste
• manure		odour 100%
• chlorophenol		odour 100%

REDUCTION OF HARMFUL SUBSTANCES

Heavy metals:

• chromium (Cr)	7,0 µg/l	up to 60%
• zinc (Zn)	45,0 µg/l	up to 80%
• mercury (Hg)	0,18 µg/l	up to 83%
• copper (Cu)	1,0 mg/l	over 99%
• cadmium (Cd)	50,0 µg/l	40 to 50%
• iron compounds (Fe)		up to 95%

Organic contaminants and pesticides:

• phenol and derivatives	1,0 mg/l	70 to 99%
• polycyclic aromatic compounds		55,0 µg/l 72 to 90%
• O-cresol	70,0 µg/l	99%
• atrazine	9 µg/l	98%
• lindane	65,0 µg/l	80 to 95%
• parathion	18,0 µg/l	50 to 66%
• anionic detergents	1,2 mg/l	100%
• fluoranthene	20 µg/l	85%

The above performance figures have been fully tested by third party laboratories.

REMOVAL OF MICROORGANISMS

BACTERIA, FUNGI AND PROTOZOA:

The FILOPUR® filter C1 has an excellent reduction performance regarding microorganisms. In independent test series, its retention capacity was tested with three different bacteria.

<i>Product</i>	<i>Entry concentration</i>	<i>Retention capacity</i>
• Escherichia coli	1 Mio./ml	100%
• Vibrio cholerae	1 Mio./ml	100%
• Serratia marescens	1 Mio./ml	100%

These results allow to expect a complete elimination of morbidic bacteria, protozoa and fungus germs in the drinking water.

Bacteria: (Among others, the following microorganisms belong to the same group):
 Salmonella spec. , Serratia marescens, Pseudomonas spec., Legionella spec.
 Flavobacterium spec., Streptococcus faecalis, Enterococcus spec., Staphylococcus spec., Sarcina spec., Micrococcus spec., Ridium perfringens, Bacillus subtilis, Bacillus anthracis, Bacillus cereus

Protozoa:
 Plasmodium malariae
 Entamoeba histolytica

Fungi:
 Candida albicans
 Saccharomyces cerevisiae

VIRUSES:

The test series relative to the hepatitis A with very high virus concentrations showed also excellent results.

<i>Product</i>	<i>Entry concentration</i>	<i>Retention capacity</i>	<i>Filter type</i>
hepatitis A virus	> 10 ⁵ /ml	over 98,9%	C1
hepatitis A virus	> 10 ⁴ /ml	over 99,997%	CA+C1

Expertise: HYGIENE MIKROBIOLOGIE LABOR, Meggen, Switzerland (1992)
 Expertise: INSTITUT FÜR KLINISCHE MIKROBIOLOGIE UND IMMUNOLOGIE; St. Gallen, Switzerland (1993)

The hepatitis A viruses belong to the smallest viruses known (0,02 - 0,03 µm). Based on these results, similar or even better results can be expected regarding polio-, Cocksackie-, picorna- and larger viruses.

The C1 filter medium is impregnated with a silver coat which prevents the retained germs from growing again. The concentration of the silver ions in the filtrate lies distinctively below the limit of 10 ppb. A growing of the germs through the filter has not been observed yet.

SALTS AND MINERALS

The FILOPUR® C1 filters do not demineralize drinking water. Thus, the FILOPUR® C1 filters cannot be used for desalination of drinking water. Similarly, certain salts cannot be removed by the filter, or only in part. For the elimination of specific undesirable or toxic salts and minerals (for instance nitrate, lime /carbonate) FILOPUR® provides special cartridges.