



WASTE WATER FILTRATION

with EVERZIT® N

- 3rd Purification Stage -





A much clearer Lake Constance

EVERZIT® N performed a success story at the Lake Constance, Europe's largest drinking water reservoir. During the 70's, acute danger of eutrophication existed for this unique resource.



Sewage plant Eriskirch

Abwasserverband
Unteres Schussental

The Waste Water Association "Unteres Schussental" started to run the first flocculation filtration in the Waste Water Plant of Eriskirch on the banks of Lake Constance.

Harald Schäfer, Minister for the Environment of the Land Baden Württemberg at that time stated: „This step is a clear sign for water purity of inshore waters“. And he was right after all because the use of EVERZIT® N in the seven multi-layer filters led to a drastic phosphate reduction with a residual value of only 0,1 to 0,2 mg per litre. The improved water quality in river mouth in Schussen was visible to the naked eye.

Filter layout:

EVERZIT® N 1,4 - 2,5 mm:	850 mm
Quartz sand 0,71 - 1,25 mm:	650 mm
Support layer:	150 mm

Technical data:

Capacity:	approx. 1.800 m ³ /h
Number:	7
Total surface:	approx 155 m ²
Maximum filtering speed:	12,0 m/h



Fish return to the River Wupper

With a capacity of approx. 700.000 residential units the Buchenhofen Sewage Plant is the largest sewage treatment plant of the "Wupperverband" (Wupper River Association) cleaning of up to 370.000 cubic metres of waste water day by day.

After a 7-step waste water treatment process you find 28 open multi-layer filters installed in 1994. More than 2300 m³ of EVERZIT® N were installed in this flocculation filtration, reducing in the last treatment step of the sewage plant the phosphate content of the waste water. By adding ferric (III)

chloride the waste water is being flocculated thus bounding the phosphate. Then filtration with EVERZIT® N takes place, effectively and economically filtering the phosphate and other pollutants out of the water.

With more than 100 years of history of the Sewage Plant Buchenhofen EVERZIT® N contributed to an increased downstream water quality. That is proven not only by measurements but also by an immense fish population as a clear sign of the improved water quality.



Picture: Stuttgarter Luftbild Elsässer GmbH



Sewage plant Buchenhofen

Filter layout:

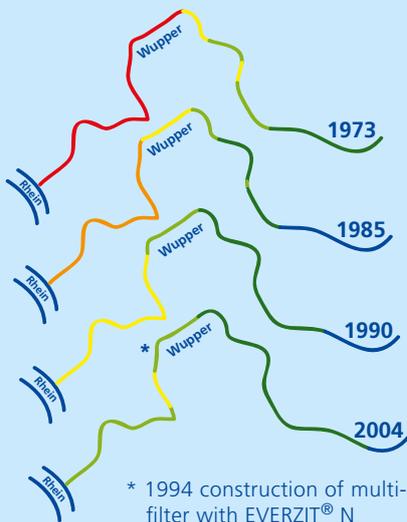
EVERZIT® N 1,4 - 2,5 mm:	1.400 mm
Quartz sand 0,71 - 1,25 mm:	400 mm
Support layer	200 mm

Technical data:

Capacity:	approx. 20.000 m ³ /h
Number:	28
Total surface:	approx. 1.680 m ²
Maximum filtering speed:	12,0 m/h



Progression of the water quality of the River Wupper



* 1994 construction of multi-layer filter with EVERZIT® N

Quality classes

■	I - II	no or very low contamination
■	II	medium contamination
■	II - III	critical contamination
■	III	high contamination
■	III - IV	very high contamination
■	V	excessive contamination

Long-term measurements confirm:
A continuous water quality of stage II between Wuppertal and Leverkusen is no longer just a vision.

Authority: Wuppertal Water and Environmental Association

Reference sewage plants

Aachen-Soers	Emsdetten	Neuss-Ost
Aachen-Eilendorf	Eriskirch	Paderborn-Sande
Bielefeld-Brake	Hückeswagen	Salzgitter
Bocholt	Köln-Weiden	Stuttgart-Sindelfingen
Bonn	Krefeld	Wuppertal-Buchenhofen
Düsseldorf-Süd	Mannheim-Sandhofen	Wuppertal-Kohlfurt
		etc.

EVERS worldwide

Around the globe more than 20 billion litres of drinking water are being filtered daily with filter materials from EVERS. That corresponds to the daily drinking water requirement of more than 6 billion people.

Evers products are shipped from the Münster Area to all continents. Here are three examples for the successful applications:

Africa's largest seawater desalination plant in Hamma, Algeria, produces up to 200 million litres of drinking water daily, thus providing fresh drinking water for one third of the 6 million inhabitants of Algiers. The complete pre-filtration of the sea water is carried out with EVERZIT® N filter material. The crucial advantage compared to conventional sand filtration: EVERZIT® N does not release silica that might cause scaling of the RO membranes.

Various orders received from the International Relief Organisation IOM for mobile Water Treatment Units EVERS WATER WONDER® were shipped by Evers to Myanmar, Haiti and Iraq. With these units the staff and local people are provided with clean drinking water that is badly needed.

In Kerala, South India, an EVERZIT® N single layer filter operating with the EVERS EASY FILTRATION® - System removes contaminations from more than 400 litres of ground water per hour. The essential advantages of this system which is patent-protected are the extremely long running time of the filter and the innovative back-washing according to the gravity principle which is, back-washing the filter material almost without any energy. Thus, water and energy are saved.



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At present approx. 20.4 billion litres of raw water are daily treated with EVERZIT® N to valuable drinking water worldwide.