Filtralite® Clean

WASTE WATER

Filtering the water for tomorrow
Our purpose

Whether you live in Cairo, Chicago, or Copenhagen, there is an increasing influx of people moving to the big cities. Demographic changes and urbanization across the globe puts a strain on cities and their capacity to produce basic necessities such as wastewater treatment.

As water flows through the filter bed, the unique porosity of Filtralite® Clean filter media offers optimum conditions to retain and adsorb more contaminants than conventional filter media can. The increased contact area allows larger volumes of water to be filtered through the same amount of media, decreasing operating costs.

As cities are gearing for the future, Filtralite® Clean filter media is an innovative and premium filtering product tailored to meet tomorrow's needs.
Filtralite® products can be used:

- For biofilm growth support in aerobe (nitrification and organic matter) and anoxic (denitrification) biological reactors
- In single and dual media tertiary/polishing filters
Filtralite® Clean performance in numbers

A 25-year lifespan for Filtralite® Clean media in biological filters1

In tertiary filtration, time between backwashes can be increased by about 25 %2

Existing Filtralite® filters operate around 15 m/h -20 m/h for tertiary filtration

What are the advantages of Filtralite® Clean in biological reactors?

In biological aerated filters, biomass attaches to the Filtralite® media, which also works well as a mechanical filter for suspended solids. Filtralite® Clean offers:

- great specific area for biofilm growth combined with high void ratio
- high number of macropores
- an efficient process on a volumetric basis
- lighter density than traditional media
- high resistance to abrasion

What are the advantages of Filtralite® Clean in tertiary filtration?

Compared to traditional filter media, Filtralite® has much higher porosity, which gives:

- lower initial head loss
- slower head loss build up
- higher particle storage capacity
- lower backwash rates
- lower operational costs

Our project references:

1 VEAS, Oslo, NO 2 Käppala, Sweden
### Filtralite® Clean products for biological treatment

<table>
<thead>
<tr>
<th>ROUND/CRUSHED MATERIAL</th>
<th>GRAIN SIZE</th>
<th>PARTICLE DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round material</td>
<td>4-8 mm</td>
<td>1.400-1.600 kg/m³</td>
</tr>
<tr>
<td></td>
<td>3-6 mm</td>
<td></td>
</tr>
<tr>
<td>Crushed material</td>
<td>2.5-5 mm</td>
<td></td>
</tr>
</tbody>
</table>

### Filtralite® Clean products for tertiary filtration

<table>
<thead>
<tr>
<th>ROUND/CRUSHED MATERIAL</th>
<th>GRAIN SIZE</th>
<th>PARTICLE DENSITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crushed material</td>
<td>2.5-4 mm</td>
<td>1.100-1.300 kg/m³</td>
</tr>
<tr>
<td></td>
<td>1.5-2.5 mm</td>
<td>1.400-1.600 kg/m³</td>
</tr>
</tbody>
</table>
Filtralite® filter media is made by heating specialized clay to around 1200° C. The heating creates highly porous ceramic media which is then crushed and sieved to specific sizes.

Dry particle densities range from 500 to 1,600 kg/m³ and aggregate sizes range from 0.5 to 20 mm, and can be “tailor-made” for specific applications.

In addition to its low density and high porosity, Filtralite® offers high abrasion and impact resistance.

Filtralite® develops and manufactures quality filter media for a variety of water treatment applications:

- **Filtralite® Pure** for drinking water solutions, both for physical filtration and biological treatment
- **Filtralite® Clean** for wastewater treatment, both for biological process and tertiary filtration
- **Filtralite® Nature** for onsite water remediation

Contact information

www.filtralite.com

Filtralite is a Leca® International brand