

Poseidon – one-step ion and particle filtration

Poseidon is a viscose fibre with an incorporated ion exchange functionality which can be fully regenerated. Compared to commercially available ion exchange resins Poseidon offers a much higher active ion exchange surface area which delivers an increased rate of ion exchange.

Applications:

- Water softening

Functional anionic sulfonyl groups exchange ions causing hardness such as calcium and magnesium. The sodium loading of Poseidon prevents acidification of the water during the ion exchange process.

- Pharmaceutical filtration or release

Poseidon can also be used for the filtration of cationic substances or for the controlled release of cationic substances such as pharmaceuticals or other active components.

- Particle filtration

The fibre structure allows particle filtration and ion exchange at the same time

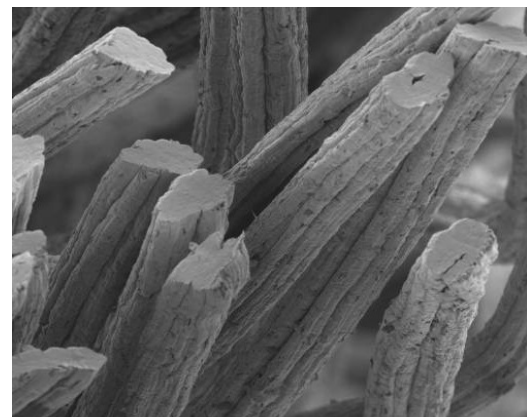
- Antimicrobial filtration if loaded with bioactive silver

- Reversible ion loading

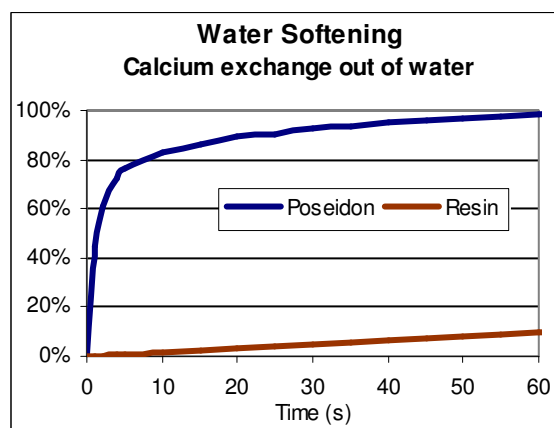
Use as as marker if loaded with rare metal ions

- Filtration of heavy metal contaminated liquids

Heavy metals can be effectively removed from effluent streams filtered off



SEM image of Poseidon



Processing:

Poseidon can be processed on all common nonwovens and wetlaid equipment and can be pressed into tablets.

Properties / Availability:

Tenacity (cN / tex)	8.5
Elongation at break (%)	17
Ion exchange capacity (mmol/g)	1.55
Loading / exchange functionality	Sodium loaded sulfonyl groups

Decitex	2.1, 3.3
Wet short cut (mm)	3, 4, 5, 6, 8, 10, 12, 19
Colour	Pale beige

Other dtex / staple lengths and other loadings / exchange functionalities are available on request.

For more information about our products please email to: functionalfibres@kelheim-fibres.com or call Germany +49-9441-99353. Please visit also our website www.kelheim-fibres.com . 09/2011