

zeo plus

SUPERIOR FILTER MEDIA

ZeoPlus is a naturally occurring mineral rock, found in areas where there has been historic volcanic activity. Its microporous structure and ammonia removal properties will significantly improve the quality of your swimming pool water.

- » Superior water clarity
- » Reduced chlorine demand
- » Reduced skin and eye irritations
- » Reduced "Chlorine" odour

Ideal for teaching pools, hydrotherapy pools and spas



Dual Filtration

ZeoPlus provides excellent mechanical filtration of suspended particles. In addition to trapping the larger particulates between the grains of the ZeoPlus (similar to the filtration mechanism of sand), ZeoPlus is also capable of filtering the smaller particulates by catching them within its micro porous structure and surface irregularities.

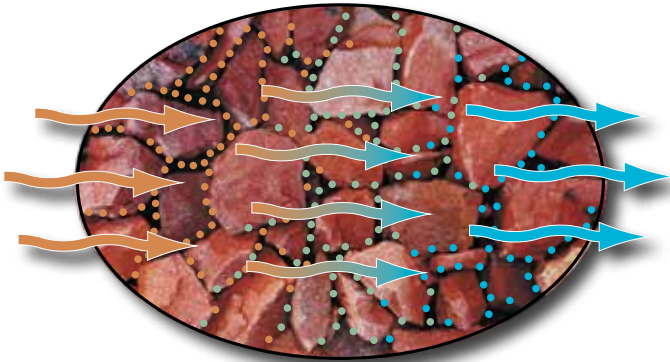
It is this dual filtration action that helps ZeoPlus achieves superior water clarity.

Ammonia Removal

Ammonia is released in the water by bathers and when the ammonium ions mix with chlorine, chloramines are formed producing a "chlorine" odour as well as causing skin and eye irritations.

ZeoPlus will inhibit the formation of chloramines leading to:

- Reduced Chlorine demand
- Reduced skin eye irritations
- Reduced "Chlorine" odour



ZeoPlus is particularly suitable for teaching pools and hydrotherapy pools and spas, where the tendency to build up ammonia by products is strongest.

Micron Deep Bed Filters

Waterco recommends the use of its range of Micron Deep Bed Filters. The unique deep bed design of the filter enhances Zeoplus' advanced filtration properties.



ZeoPlus Physical and Chemical Characteristics

Property	Specification
Main Zeoplus Minerals	Mordenite and Clinoptilolite
Nominal Product Size	- 2.2 mm + 1.0 mm
Hardness (Moh Scale)	4.5 to 5.0
Particle Specific Gravity	2.2/2.3
Bulk Density	Around 1200 kg/m ³
Average Ammonia Exchange Capacity (meq/100g)*	~ 146

Regeneration of ZeoPlus

ZeoPlus should be regenerated once it is saturated i.e. full of ammonium. On an average pool this takes around 12 months, although heavily used spas and hydrotherapy pools may require regeneration sooner. ZeoPlus should be regenerated once ammonium level starts to increase. As a rule of thumb, regenerate ZeoPlus when the ammonium concentration of the outlet water is greater than 1 ppm.

Please note: If ZeoPlus is not regenerated, it may lose its ability to adsorb ammonium. However, it will still perform effectively as a mechanical filter with a life span of up to ten years (depending on the frequency of backwash).

Regeneration Procedure:

1. Backwash the filter as usual until the backwash wastewater is clear of particulates.
2. Isolate the filter.
3. Drain completely the water in the filter by opening the bottom drain plug and replace drain plug once finished.
4. Make up 200g/L of brine solution. Refer to example below to determine the required amounts of salt and water.
5. Pour the well dissolved brine solution into the filter until it completely covers the bed by about 40mm.
6. Mix solution into the media by agitating vigorously. Replace lid or MPV.
7. Leave it to soak overnight (for a minimum period of 12 hours). Once regeneration is complete the ZeoPlus bed must be rinsed with fresh water until the outlet water salt level or TDS is similar to the incoming water.
8. Turn the valve(s) to BACKWASH cycle. Run BACKWASH for 3 to 5 mins
9. Run RINSE cycle for 3 minutes then select BACKWASH again, followed by RINSE for another 3 minutes. If the filter does not have a RINSE cycle, run BACKWASH for an extra 20 minutes.
10. Turn valve(s) to FILTER cycle. You are now ready to operate the ZeoPlus filter as before.

Note:

- Always turn off the pump before changing valve position.
- In heavily used spas and hydrotherapy pools, regeneration may be required sooner than 12 months.

How much Brine is required?

To regenerate a Micron SD600 with ZeoPlus;

Filter Model	Tank Diameter (mm)	Overall Height (mm)	Bed Depth (mm)	ZeoPlus (kg)
SD600	624	1135	500	166

- First calculate the volume of Brine required by determining the volume of Zeoplus in the filter (divide the mass of ZeoPlus (kg) by its bulk density of 1.21 kg/L).

$$> 166 \text{ kg} / 1.21 \text{ kg/L} = 137 \text{ litres of Brine required,}$$
 - If allowing extra 10 litres to adequately cover the filter media, 147 litres of Brine Solution is required.
 - Now to make Brine solution of concentration 200 g/L, calculate the mass of salt required.

$$> 147 \text{ L} \times 200 \text{ g/L of Salt} = 29,400 \text{ g or } 29.4 \text{ kg of salt}$$
 - Therefore add 29.4 kg of salt to 147 litres of water to produce the necessary amount of Brine to regenerate Zeoplus in the SD600 filter.
- Salt 25kg - Waterco Code 35219232

OFFICES - AUSTRALIA

NSW - Sydney (Head Office)
Tel: +61 2 9898 8600

QLD - Brisbane
Tel: +61 7 3299 9900
VIC/TAS - Melbourne
Tel: +61 3 9764 1211

WA - Perth
Tel: +61 8 9273 1900

SA/NT - Adelaide
Tel: +61 8 8244 6000

ACT Distribution
Tel: +61 2 6280 6476

OFFICES - OVERSEAS

Waterco (Europe) Limited
Sittingbourne, Kent, UK
Tel: +44 (0) 1795 521 733

Waterco (USA) Inc
Augusta, Georgia, USA
Tel: +1 706 793 7291

Waterco Canada
Boucherville, Quebec, Canada
Tel: +1 450 748 1421

Waterco (NZ) Limited
Auckland, New Zealand
Tel: +64 9 525 7570

Waterco (C) Limited
Guangzhou, China
Tel: +86 20 3222 2180

Waterco (Far East) Sdn Bhd
Selangor, Malaysia
Tel: +60 3 6145 6000

PT Waterco Indonesia
Jakarta, Indonesia
Tel: +62 21 4585 1481

Waterco Singapore Intl Pte Ltd
MAPEX Building, Singapore
Tel: +65 6344 2378

Waterco Vietnam Company
Limited
Ho Chi Minh City, Vietnam.
Tel: +84 28 3622 7780

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