

# H<sub>2</sub>OptimMulti



optimal water treatment

## data sheet

H<sub>2</sub>OptimMulti and H<sub>2</sub>OptimMulti BIO is a multifunctional water filtration media which consists of five, high quality ingredients (ion exchangers and adsorbents). It is an effective one step elimination of the 5 main problems (hardness, iron, manganese, organic, ammonia) in domestic and industrial applications.

H<sub>2</sub>OptimMulti decreases level of organic matter up to 50% (H<sub>2</sub>OptimMulti BIO up to 80%). The media works with every water supply (municipal and well), regardless of iron form (colloidal, ferric, ferrous or organic), pH level, hardness, hydrogen sulphide, organic content.



### Main advantages of H<sub>2</sub>OptimMulti and H<sub>2</sub>OptimMulti BIO systems:

- Removes up to five major contaminants.
- H<sub>2</sub>OptimMulti and H<sub>2</sub>OptimMulti BIO is more efficient than the traditional water treatment technologies. Its performance is not affected by pH level, organic content or hydrogen sulphide presence.
- Simple filter size calculation - only compensated hardness level is taken under consideration.
- Low operational cost (low salt and water consumption during regeneration).
- Innovative approach allows for substantial savings (less units than in traditional process).

H<sub>2</sub>OptimMulti and H<sub>2</sub>OptimMulti BIO meet all the requirements of Polish National Institute of Hygiene and are approved for drinking water treatment within the scope of removal of hardness, iron, manganese, ammonia and organic compounds.

Available packing - double layer PE bags of 25 or 12 liters.

### Two types of media:

- H<sub>2</sub>OptimMulti - removes hardness, iron, manganese, ammonia and organic matter. It is used with high level of iron.
- H<sub>2</sub>OptimMulti BIO - removes the same contaminants as H<sub>2</sub>OptimMulti but it is used with water containing high level of organic matter.



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## Contaminants concentration limits in raw water

### H<sub>2</sub>OptimMulti:

Fe	max. 15 ppm*
Mn	max. 3 ppm*
COD	max. 16 ppm O <sub>2</sub>
NH <sub>4</sub>	max. 4 ppm

### H<sub>2</sub>OptimMulti BIO:

Fe	max. 10 ppm*
Mn	max. 3 ppm*
COD	max. 80 ppm O <sub>2</sub>
NH <sub>4</sub>	max. 4 ppm

## Properties:

Total exchange capacity	0,9 eq/l
Temperature	3 - 42°C (storage) Max 70°C (operation)
pH	4 - 9
Bed depth	500 mm (minimum) 800 mm (optimum)
Pressure drop ( @ 15°C )	1,1 kPa* h/m <sup>2</sup>
Max. pressure drop	200 kPa
Free bed volume	40% tank height
Salt consumption	100 - 150 g/l
Salt concentration	8 - 10%
Bulk density	0,8 kg/l

## Flow rates:

Service	20 - 25 m/h
Backwash	13 - 15 m/h
Brine	3 - 5 m/h
Rinse	13 - 15 m/h
Water consumption	4 - 6 bed volumes

## Safety precautions:

Strong oxidants, e.g. nitric acid, can cause violent reactions if they come into contact with ion exchange resins.  
Avoid spilling - the risk of slip.

## Disposal:

Methods of disposal of waste ion exchange resins are defined by directives of the European Union (e.g. 190 905, 190 806)

## Storage:

It is recommended to store the media at temperatures above freezing point of water, under roof in dry and ventilated place without exposure to direct sunlight. Do not allow to dry out. Store in original bags.

\* If Fe>5 ppm, Mn>1 ppm manufacturer consultation or oversizing is recommended.