

## Specifications for Circulation Heating and cooling water

Test	Unit	Standard	Nominal value
Appearance			colourless, clear
Odour			odourless
Sediment	ml/l		none
Particle size	µm		< 20
Conductivity	µS/cm	DIN EN 27888	100 - 600 *
pH-Value		DIN 38404 T5	7,0 - 9 **
Total Hardness	mmol/l °dH	DIN 38409 T6	0,7 - 1,8 4 - 10
Acid-capacity pH 4,3	mmol/l	DIN 38409 T7	1,4 - 3,6 *
Hardness	°dH		4 - 10 *
Lime-aggressive carbonic sugs	mg/l	DIN 38404 T10	nicht vorhanden / none
Cl <sup>-</sup>	mg/l	DIN 38405 T1	< 25
NO <sub>3</sub> <sup>-</sup>	mg/l	DIN 38405 T9	< 25
SO <sub>4</sub> <sup>2-</sup>	mg/l	DIN 38405 T5	< 100
Fe, total	mg/l	DIN 38406 T1	< 0,05
Mn	mg/l	DIN 38406 T2	< 0,02
Al	mg/l	ISO 12020	< 0,1
KMno4-Index	mg/l	ISO 8467	< 10 ***
flow rate			max. 2,1 ms <sup>-1</sup>

### Explanations:

\*) Carbon hardnesses up to 5.4 mmol/l (15 °dH) can be accepted for soft water (base-exchanged water). It is recommended, Desalinate water with conductance values up to 600 µS by osmosis (RO), i.e. use osmosis blend

\*\*) The pH range was used according to DIN 50930 T1-5 (corrosion). If osmosis water is used, the hardness should be increased by cutting with fresh water can be adjusted to the minimum degree of hardness. The pH value for soft water can be adjusted to values around pH 6 sink. The pH value of extremely acidic water should be increased with sodium caronate solution. ~ 20 g is sufficient. Sodium carbonate/m3, added as 10% solution. The addition (inoculation) can take place before the softening (base exchange).

\*\*\*) For organic soiling (algae etc.) the permanganate index was introduced.

If the water quality differs, please contact a specialist company for water technology.

### We recommend

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**We cannot assume any warranty in the event of malfunctions or damage to the heating or cooling plates due to deviating water quality.**