

REQUIREMENTS WATER-CARE FOR TEMPERATURE CONTROL UNITS

Depending on the unit to be cooled or heat-balanced, certain requirements have to be met by the cooling water regarding its quality. In order to protect all parts of the unit against corrosion, Labotek recommends as a matter of principle to treat the water with a suitable cleaning agent (anticorrosive as well as non-ferrous metal protector and hardness stabilizer). In addition, depending on the materials installed, the temperatures and the type of process, the following water quality data have to be met.

As a rule the following data apply:

HYDROLOGICAL DATA	MAX	UNIT
PH-value	7,5 – 8,5	-
Conductivity	< 150	mS/m
Total hardness	< 15	°dH
Carbonate hardness	< 4	°dH
Carbonate hardness in case of stabilization of hardness	< 20	°dH
Chlorid Cl	<100	mg/l
Sulphate-So4	< 150	mg/l
Ammonium NH4	< 1	mg/l
Iron Fe	< 0,2	mg/l
Manganese	< 0,1	mg/l
free from solids		

Furthermore the following applies:

- Systems with stainless steel

Chlorid Cl	Temp. < 50 °C	max. 100	mg/l
Chlorid Cl	Temp. 50 up to 90 °C	max. 50	mg/l
Chlorid Cl	Temp. > 90 °C	max. 30	mg/l
- Systems with aluminium

PH-value	min. 7,0	max. 8,0
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- Temperatures below 5°C

When employing chillers at temperatures below + 5°C, an anti-freeze medium with corrosion inhibitor must be added.
- Temperatures over 120°C

At water temperatures over 120°C glycol may not be used.

If the recommended water qualities are not met, the components of the unit will be damaged due to corrosion. Labotek will not accept any liability for any such damages.