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TECHNEWS

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aquatherm

state of the pipe

DRINKING WATER REGULATION / LIMITS OF LEAD / REDUCTION OF LEGIONELLA GROWTH

The most important quality feature of drinking water is the food-physiological safety. To ensure this permanently, the DVGW regularly checks components and materials which come into contact with drinking water.

After to the 01.12.2013 already the limit for lead in drinking water was firmly established at 10 µg/l by the German Drinking Water Regulation, the guidelines to reduce the growth of legionella have now been revised.

Due to the new rule, operators of large systems for heating of drinking water (from 400 l/a) are committed to laboratory examination of their systems. If the examined object does not meet quality requirements any longer, the system must be restored in order to avoid contamination by legionella and thus a health risk of the users of the system which should not be underestimated. Especially standing water is threatened by the risk of legionella. The bacteria multiply very fast and can thrive mainly in a temperature range of 25 to 50 °C. In the young stage they proved in studies also resistant to extreme values.

Filters, sludge and corrosion affected parts of a system form a good basis for the multiplication, since there biofilms and deposits are formed. These places also offer good conditions for the formation of mucilage substances that may protect the legionella against disinfection measures. Even the contact with harmless amoeba, eating the legionella, may form an unwanted shield.

In nature, legionella are present in surface waters, but also in the soil. It does not matter whether it is fresh or salt water. A very small and acceptable amount of legionella is also found in the groundwater.

Drinking of water infested with legionella in the rule is largely harmless for healthy people. An infection occurs, however, when the legionella get into the lungs by inhalation of infected water, i.e. by spray when showering or swimming, but also by air conditioners and humidifiers. The danger thus created by pneumonia as a result of the infections is still underestimated, especially because no figures for legionella as a cause are present. Estimations come from tens of thousands of cases a year.

Two accepted ways for the combating and future prevention of contaminations are the thermal disinfection (the heating of the water to a lethal temperature for legionella for the prescribed period according to the DVGW work sheet W551) and the irradiation with UV-light. Both lead to the death of the so-called colonies.

The aquatherm plastics are generally safe for the transport of food and also the materials used by aquatherm for the brass components of the systems aquatherm green pipe and aquatherm grey pipe meet the new requirements.

AQUATHERM INFORMATION FROM 05.03.2014

LEAD IN DRINKING WATER, BRASS MATERIAL REQUIREMENTS FOR PIPE CONNECTORS

To 01.12.2013, the limit value for lead in drinking water is binding determined to 10 µg/l.

Therefore it must be ensured that only those materials are applied for DVGW-approved plumbing systems which are reported in the list of "Drinking water hygienic suitable metallic materials" of the Federal Environment Agency as suitable for the use in the field "B" (armatures, pipe connectors, appliances and pumps).

The materials used by aquatherm for the brass components of the systems "aquatherm green pipe / fusiotherm and aquatherm grey pipe /SHT" meet this requirement.

aquatherm GmbH

aquatherm red pipe

SPECIFIC KIND OF INSTALLATION VARIANT WITH VISIBLE SPRINKLER IN EXPOSED CONCRETE CEILINGS

Exposed concrete ceilings became more and more popular again both in superior administrative and residential buildings during the past few years.

Metallic pipes cannot be laid directly in concrete due to the well-known corrosion problems. Because of its corrosion resistance, aquatherm red pipe made of material fusiolen PP-R FS is especially suitable for these kinds of installation. A long-term, maintenance-free operating time of the installation is thus guaranteed.

The aquatherm red pipe system is a cost-effective and VdS-certified installation variant for the contractor. By using the aquatherm red pipe sprinkler outlet $\frac{1}{2}$ " for visible sprinklers in connection with an aquatherm red pipe transition piece $\frac{1}{2}$ " female, the hollow space in the exposed concrete ceiling is 3 cm deep at a diameter of 6 cm including $\frac{1}{2}$ " f connection thread.



The $\frac{1}{2}$ " f connection thread is suitable for direct use with sprinkler heads tested and certified for this kind of application by the VdS.



The distance from sprinkler head to the ready exposed concrete ceiling is ≥ 7 mm. There is no collar necessary and a useful and cost-effective solution found.

Further information on request.



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NEW CATALOGUES AVAILABLE

New catalogues are available for download at www.aquatherm.de and in printed version:

OD10101 **aquatherm green pipe** German

OE10101 **aquatherm green pipe** English

ES10101 **aquatherm green pipe** Spanish

