Deutscher Verein des Gas- und Wasserfaches e.V.

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INFORMATION

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DVGW Information

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Prevention of Damage caused by Corrosion or Scaling in Potable Water Installations

WATER

The DVGW is the technical and scientific association of gas and water engineers and comprises approximately 14,000 members. For 160 years, the DVGW has been setting the technical standards for the safe, secure and reliable supply of gas and water, actively initiating the exchange of ideas and information in the gas and water sectors and encouraging and promoting on-going progress in the sectors through practical guidance.

The DVGW is an independent non-profit organisation free from economic lobbyism and political influence.

The DVGW Set of Rules is a key instrument for the DVGW to meet its statutable purpose and accomplish its tasks. The DVGW Set of Rules notably defines, on the basis of statutory regulations, the requirements on technical safety, hygiene, environmental protection, fitness for use and consumer protection and organisation for the supply and use of gas and water. The DVGW Set of Rules ensures that the DVGW complies with the statutory principle of self-responsibility of the utilities, for the benefit of technical safety and hygiene as well as environmental and consumer protection.

Note for users

The DVGW Set of Rules rests on the following principles:

- The DVGW Set of Rules has been elaborated in an honorary capacity in accordance with the applicable principles (DVGW Constitution, Rules of Procedure GW 100). On the basis of jurisdiction, both the content and the technical information can be assumed to be correct.
- Everybody can use the DVGW Set of Rules. Duties and obligations may arise from legal or administrative regulations or from a contract or from other legal grounds.
- Nobody can abdicate their responsibility for correct action when applying the DVGW Set of Rules. Anyone applying the DVGW Set of Rules shall ensure its correct application in each concrete case.
- While the DVGW Set of Rules is not the only source of knowledge when looking for professional solutions, it does constitute an important source of such knowledge. It cannot however cover all possible special cases that may require more comprehensive or restrictive measures.

Warning

This English-language version is an informal translation from the German original. However, only the original German language version has been exclusively authorised by the DVGW and its Technical Bodies. The DVGW reserves the right to revise this version at any time due to possible translation errors.
Anybody is free to use the DVGW system of rules. Users are responsible for the proper use of the DVGW system of rules in each individual case.

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DVGW
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Inhalt

Foreword

This DVGW Information W 112 was prepared by a project group of the Technical Committee W-TK-3-4 "Internal corrosion and technical safety". It provides practical advice on how to prevent damage caused by corrosion or scaling in installations conveying water intended for human consumption (potable water installations). The information relates this topic to the design, construction, operation and maintenance of potable water installations in accordance with the Technical Rules for installations conveying water intended for human consumption, other functional standards to be observed and product standards.

The Code of Practice for installations conveying water intended for human consumption (TRWI) are part of the DVGW Technical Rules. The Code of Practice for installations conveying water for human consumption consist of the series of standards DIN EN 806 and DIN 1988 as well as the DVGW Codes of Practice and Technical Advice from W 551 series. These rules apply to the design, installation and operation of potable water installations and describe basic functional interrelationships.

For the evaluation of the likelihood of corrosion in potable water installations, the series of standards DIN EN 12502 shall be consulted in addition to the principles from the code of practice for installations conveying water intended for human consumption. This series of standards is also part of the DVGW Technical Rules and it is divided into five different parts, whereby the first part covers the general principles and the remaining parts cover the material-specific aspects.

Equipment for water conditioning, e.g. to reduce scaling or corrosion, is described in more detail in European or national product standards. These product standards are the basis for standardised production and certification of these equipment. Based on product standards, important requirements, e.g. regarding dimensions, performance, efficiency, pressure resistance or hygiene, can be defined and made testable and assessable. Functional standards refer to product standards, for example to specify a level of safety.

The presented DVGW Information takes up numerous aspects for the prevention of damage due to corrosion or scaling in potable water installations from the functional and product standards and comments on them, especially for persons who design, construct, or operate potable water installations.