

## Press release

DEKRA analyzes causes of damage to flexible hoses

### **Cheap hoses, installed incorrectly**

- An evaluation of 80 cases of damage shows: corrosion is the main cause
- The service life of flexible hoses must not be exceeded
- Professional installation and certification provide safety

DEKRA e.V.  
Corporate  
communication  
Handwerkstrasse 15  
D-70565 Stuttgart

[www.dekra.de/presse](http://www.dekra.de/presse)

**Flexible hoses for drinking water connections cause many incidents of avoidable water damage. Non-certified, defective hoses, corrosion due to aggressive detergents, and incorrect installation are the main reasons. This was revealed in investigations by DEKRA experts who evaluated 80 cases of damage caused by flexible hoses – also referred to as “reinforced hoses”.**

For several years, the accredited DEKRA Labor für Werkstofftechnik und Schadenanalytik (Laboratory for Materials Engineering and Damage Analysis) in Saarbrücken has determined that many damages caused by tap water with high consequential costs are due to damages to flexible connecting hoses. The material experts have now evaluated over 80 anonymized cases of damage and examined them for the causes.

The result: Over one third of the damages could be attributed to corrosion of the wire mesh. This is frequently caused by using detergents containing high levels of chloride. Even very anticorrosive stainless steel can become corroded from contact with liquid containing high levels of chloride.

About 40 percent of these damages involved a flexible hose with a wire mesh made of aluminum – without a certification mark by the German Technical and Scientific Association for Gas and Water (DVGW). The special thing about it is: According to DIN EN 13618, these hoses with a wire mesh made of aluminum are not permitted for drinking water installations because of their low corrosion resistance.

Almost one third of the damages could be attributed to product defects, mainly involving hoses without a DVGW certification mark as well. One fourth were installation errors, partially caused by inappropriate installation tools. Only less than one in every ten cases of damage could be attributed to corroded brass joints or aging of a rubber hose.

So, when flexible or reinforced hoses are used, DEKRA experts advise caution:

- Only certified flexible hoses should be used! “Cheap” hoses should be avoided.

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Contact Tilman Vögele-Ebering  
Phone direct 0711.7861-2122  
Fax direct 0711.7861-742122  
E-mail [tilman.voegele-ebering@dekra.com](mailto:tilman.voegele-ebering@dekra.com)

- It is better to have the installation performed by a professional company that must assume liability for any installation error.
- The manufacturer's installation instructions must be followed.
- Do not wipe hoses with detergents containing chloride, do not store detergents under the sink, do not hang wet rags over the hose!

In addition, strict specifications apply to the installation: Hoses must not be bent or twisted. The maximum bending radius must be adhered to. In addition, hoses may only be screwed into the fitting by hand. The service life of hoses is determined by the DVGW and should never be exceeded. Usually products with a service life of 20 years are used for faucets in the kitchen and bathroom with freely accessible hoses.

### **About DEKRA**

*DEKRA has been active in the field of safety for more than 90 years. Founded in 1925 in Berlin as Deutscher Kraftfahrzeug-Überwachungs-Verein e.V., it is today one of the world's leading expert organizations. DEKRA SE is a subsidiary of DEKRA e.V. and manages the Group's operating business. In 2017, DEKRA generated sales totalling more than 3.1 billion Euros. The company currently employs more than 44,000 people in more than 50 countries on all five continents. With qualified and independent expert services, they work for safety on the road, at work and at home. These services range from vehicle inspection and expert appraisals to claims services, industrial and building inspections, safety consultancy, testing and certification of products and systems, as well as training courses and temporary work. The vision for the company's 100th birthday in 2025 is that DEKRA will be the global partner for a safe world.*