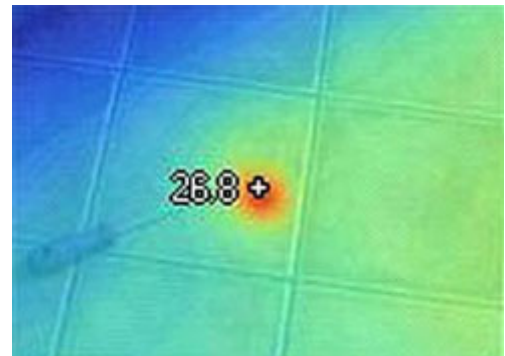
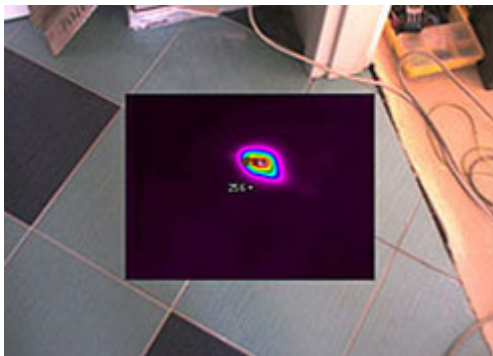


Repairs to heating cables

A frequent question asked by customers is whether it is possible to repair cables if they break down, and if it is at all possible to find the place where they are faulty. They express their concern that it will be necessary to remove the whole layer of floor covering. These worries are completely unnecessary, as the place of breakdown can be found with an accuracy of approx. 10-15 cm; however, the estimate is usually within a few centimetres. For example, if the heating cable or heating mat is directly under ceramic floor tiling, only 3-4 tiles are removed. It would usually be sufficient to remove one only but it is necessary to create a working area for the execution of the repair work.

The place of interruption can be located in two ways – firstly, a high-frequency signal can be released into the cable with the help of which the interruption can be located, while the second option is the use of an infra-camera. Both ends of the interrupted heating cable are less than a millimetre apart from each other in the floor – the cement, concrete or anhydride doesn't allow the cable to move apart. The heating cable is connected to high voltage and therefore an electric arc will have been created between both ends. This has a temperature many times higher than the temperature of the heating cable, and thus it is possible to find the place of breakdown perfectly accurately with the help of an infra-camera. Tests show that if the concrete is 10 cm thick, it takes less than 10 minutes for the warm spot to show up on the floor surface.



What are known as repair kits are used for repairs. These are kits which contain pressing connectors, connecting conductors and compression insulation. There are several kits depending on the types of cables they are intended for.



The heating cable itself cannot leave its place of production in a faulty state. It passes through several levels of inspection and thus the dispatch of a broken cable is not possible. The only places where, theoretically, a production fault could occur are the connectors of the heating cables – i.e. the endings and transitions to the cold end. Therefore, it is important to draw a diagram in the warranty certificate showing how the cable is laid and the placement of connectors. However, in practice it has become

apparent that almost 100% of breakdowns are caused by not obeying the installation rules or by mechanical damage to the cable.

A frequent cause is damage to the cable by the steel reinforcing mesh or when floor tiling joins are being cleaned before grouting. These faults can also appear with a delay. For example, if the heating cable is only partially broken it will seemingly function normally at first, but at the location where the cable is broken the transitional resistance will have increased and the cable will overheat there. The heating cable can heat normally for as much as one year before complete interruption of the connection occurs.

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