



# BOSCH

## WINDOW CONSTRUCTION

Increase energy efficiency – with the  
Bosch temperature measuring tools

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It's in your hands. Bosch Professional.



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**The Bosch temperature measuring tools serve as reliable companions in your work as a window manufacturer.**

On the one hand, they help you to look "behind the scenes" and quickly find weak points in windows and doors – in other words, they allow you to directly identify and rectify thermal bridges caused by insulation faults or areas that are not leak-tight. On the other, you can also make use of the thermal images to prove you have done a good job – when installing or performing maintenance on windows, for example – and impress the customer with a before-and-after comparison.

## Potential applications

### 1. Search for insulation faults and thermal bridges

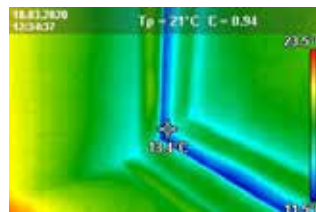
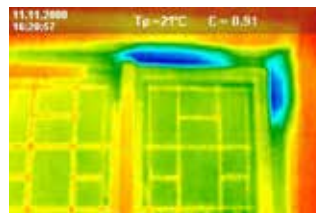
Old windows, doors and roller shutter housings are often insufficiently insulated, yet these weak points cannot be identified with the naked eye – and many are not even aware of the implications with regard to energy loss. As a professional, however, you are well aware that thermal bridges can occur if windows are not correctly installed. The thermal imaging cameras from Bosch make it easy to visualise defective insulation, sources of draught or moisture penetrations in the blink of an eye – making these easily visible to your customers, as well – and enable you to take the most appropriate course of action.

Using the practical lock function for the colour scale, you can even compare multiple windows and doors with one another quite easily. In addition, the lock function also allows you to block out sources of heat that interfere with your measurements, such as a warm radiator beneath a window, at the press of a button.

The GIS 1000 C Professional infrared thermometer can also come in handy for suspected cases of mould formation resulting from poor insulation. Mould problems of this kind are often

The correct installation of windows and doors is not only important for maintaining the indoor climate, but also for energy efficiency, which is increasingly gaining significance among customers. With regard to this, the Bosch temperature measuring tools are also particularly useful when it comes to providing advice and consultation on energy-oriented refurbishment: Window construction can be time-consuming and expensive, and without clear evidence of what needs to be done, many customers would likely adopt a "wait-and-see" approach instead. Thanks to the thermal imaging cameras and the infrared thermometer from Bosch, you can take stock of the situation with a thorough overview and make any energy leaks that may be present clearly visible, such as those at sky lights or dormers. This means that you can plainly see where there is a need for new windows.

found directly on the window frame or under interior roller shutter housings. The infrared thermometer can indicate the dew point through the additional measurement of relative humidity and ambient temperature and indicates in an easily understandable fashion whether a mould risk is present or not.



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### 2. Determining areas with penetrating water or that are not leak-tight

The consequences of water penetrating into windows or doors can be extensive. Thanks to the temperature measuring tools from Bosch, you can quickly locate areas that are not leak-tight, since damp areas that form as a result of the penetrating water will appear colder on the thermal image. Ideally, you should aim to carry out a thermographic analysis directly after rainfall, when the areas are still wet. This allows you to examine these areas in greater detail and tackle each problem area swiftly and precisely, or even determine if it is necessary to replace the entire window.

In principle, you should note the following: For a check to yield reliable results, there must be a thermal difference of at least 10 °C between the exterior and interior temperature. Even if you carry out a thermographic analysis of windows and doors at a cold time of the year, often only a small difference in temperature is present. In such cases, it is all the more important to set the temperature scale sensibly.

In other words: The scale should be configured using the lock function or the manual mode to cover a relatively low range, meaning that the thermal image will have greater contrast and only areas that are of interest will be highlighted. When using the temperature measuring tools outdoors, it is all the more important to take influential factors such as temperature and precipitation into account, since these will have a greater impact than in indoor applications.

