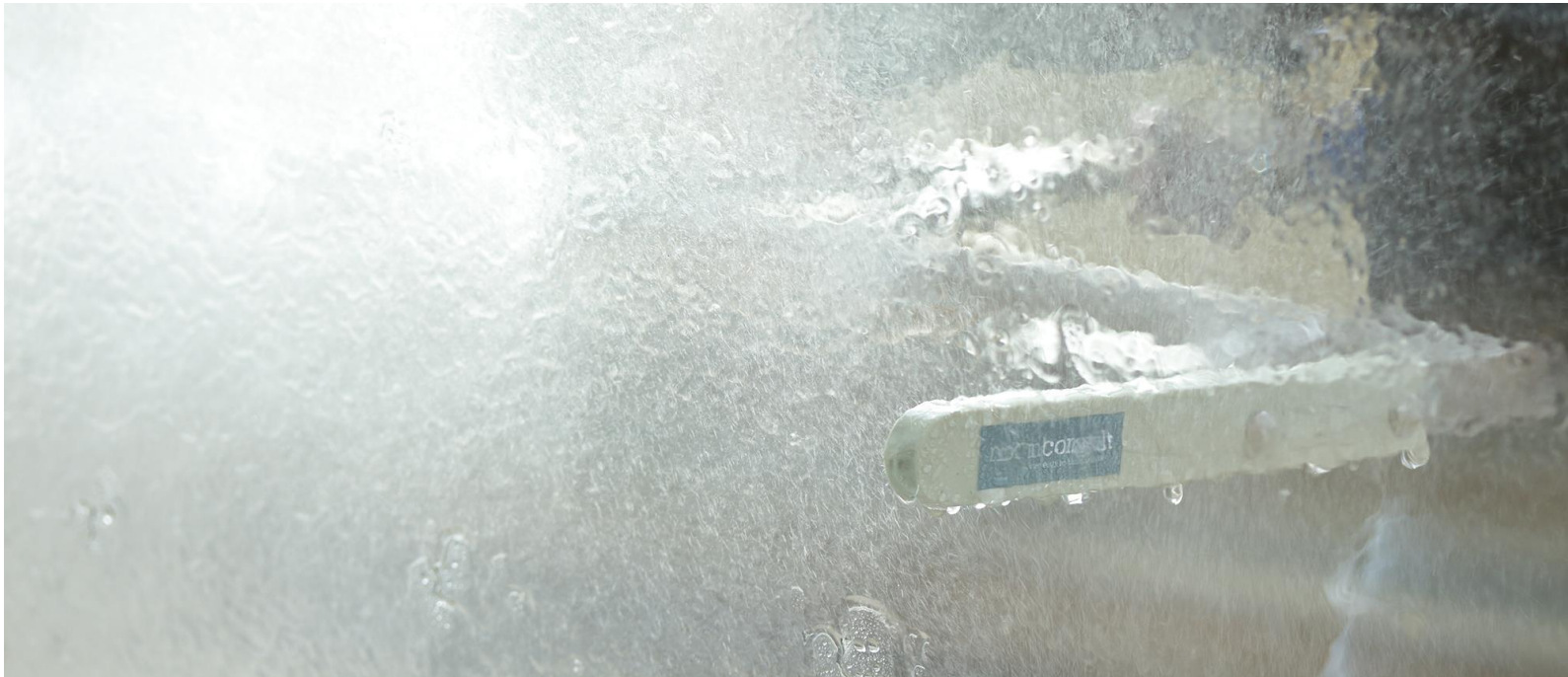


Testing the Tightness Against Driving Rain on Building Envelopes



Definition

The driving rain tightness describes the tightness of curtain facades as well as closed window elements or external doors with regard to penetrating rainwater at a defined wind force and duration of stress.

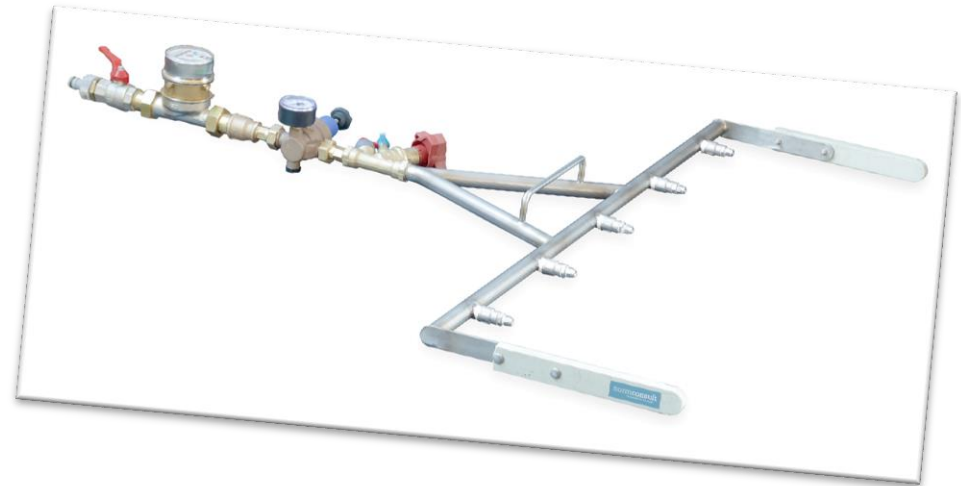
History

At the beginning of the 20th century, architects such as Walter Gropius and Mies van der Rohe developed a hitherto unknown design for the building envelope, the transparent facade. What initially developed hesitantly gradually became a trend. In the 1950s and 1960s, the construction of office buildings with facades was established and widespread. Today, the construction of a high-rise or office building without a facade is almost unthinkable.



Walter Gropius
Source: Wikipedia

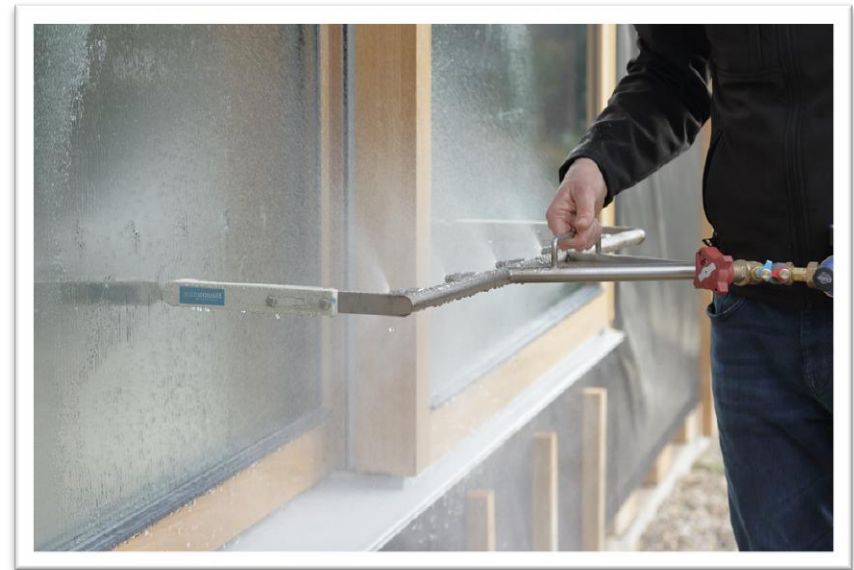
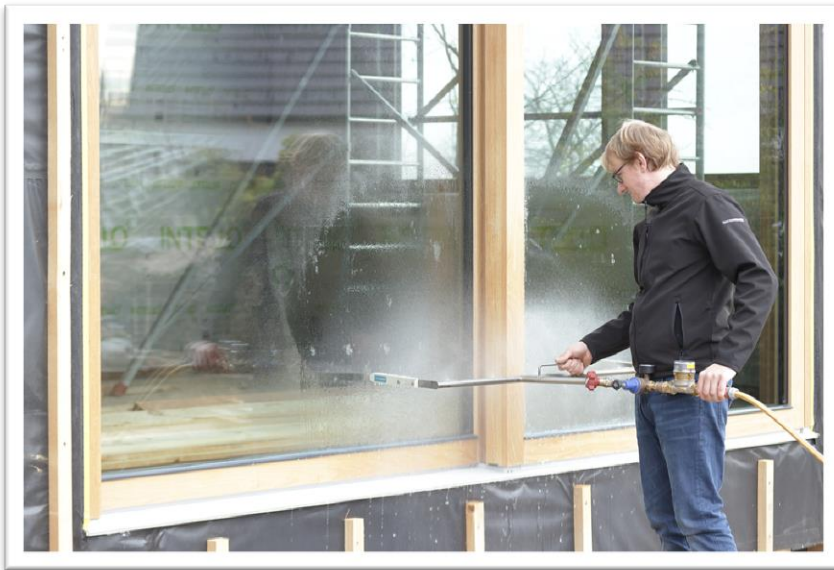
Servus from Austria: The mobile SPRAY BAR



The Austrian company normconsult GmbH has developed a robust spray system made of stainless steel for mobile use on construction sites to check the water-tightness of curtain walls, window frames and external doors, which we have included in our product range: The SPRAY BAR.

How it works

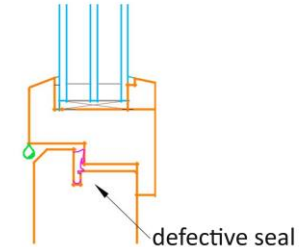
The spray system generates a uniform and closed water film to simulate driving rain on building envelopes. It is suitable for detecting larger leaks in curtain walls in accordance with EN 13051 and for testing the installation of windows, French windows and external doors, including all exterior components.



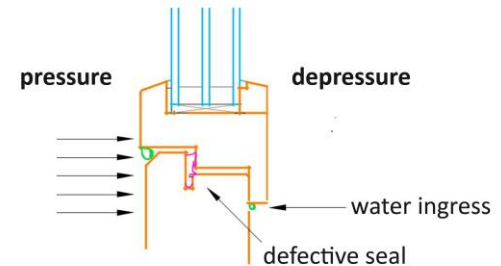
How it works



**Field test according to EN 13051
without depressurization**



**Field test according to EN 13051
at negative pressure**



The measurement is ideally conducted in combination with a BlowerDoor measuring system. The differential pressure accelerates the visualization of existing leaks. Even the smallest leaks can be reliably detected at differential pressure.

The measurement according to EN 13051

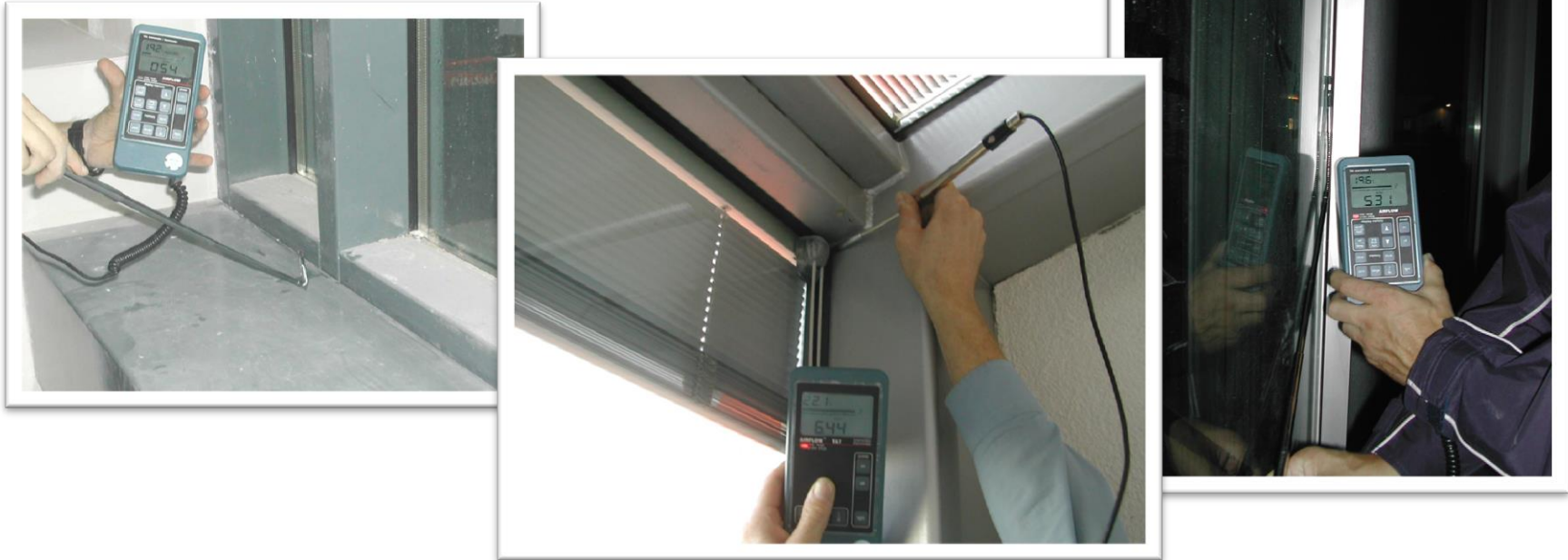


The EN 13051 standard specifies the procedure to be used for checking all places where water may penetrate, which may occur in curtain walling installed on a building.

The test is an optional test that is not required for classification purposes. It is mainly intended for applications where leakage has already occurred. If specified, it can also be used for new installations.

In Austria and Switzerland, the test for driving rain tightness for major projects is already put out to tender when the contract is awarded.

Detection of leaking connections



Typical leaks, which are very reliably detected by the driving rain test, especially at differential pressure, are defective connections to the masonry, defects in the sealing system of the profiles or in the drainage system of the profile.

Quality assurance during the construction phase

It is advisable to carry out the driving rain test already during the construction phase in order to detect defects in the curtain wall or window frames at an early stage and to be able to repair them with comparatively little effort.



Documentation

The documentation of the driving rain test can, for example, be carried out with the recordIT software. Photos and the associated information can be taken and stored on site using a tablet or smartphone, and the client can be directly included in the inventory. The recordIT software thus enables time-saving professional on-site reporting. The layout of the report can be individually defined on the basis of a Word document.



Viele Tools, **eine App.**

Literature

- DIN EN 13051:2001 Vorhangfassaden Schlagregendichtheit Feldversuch

