

# Airtightness tests for high-rise buildings

**Friday 26<sup>th</sup> January, 2024**

**10:00-11:30 (Brussels, BE)**

**9:00-10:30 (London, UK)**

**11:00-12:30 (Athens, GR)**

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**FREE** – Participation to the Webinar is free

**Registration is required:** A link to join the webinar will be included in the email confirmation

Building airtightness tests are now required or promoted in more and more countries, in particular for residential buildings. However, airtightness tests in high-rise buildings remain particularly challenging and uncommon. In addition to the difficulties of pressurizing any large-volume building and the wind issue that can be more pronounced at height, the stack effect can be particularly problematic. A temperature difference between inside and outside creates indeed significant pressure differences along the building's envelope, with leakages not equally considered depending on their location, and therefore, test results that can vary depending on the test conditions.

The new [Ventilation Information Paper n°47](#) published by the AIVC, discusses reasons behind specific problems with airtightness tests in high-rise buildings and proposes a method to tackle those issues.

The main objectives of this webinar are to:

- further explain the issue when testing high-rise buildings
- give practical recommendations to minimize the error due to the stack effect
- present alternative criteria to test high-rise buildings when those in standard ISO 9972 cannot be met
- give some on-site experience feedback

This webinar is organised with the support of the Air Infiltration and Ventilation Centre ([www.aivc.org](http://www.aivc.org)) and TightVent Europe ([www.tightvent.eu](http://www.tightvent.eu)). Both initiatives are facilitated by INIVE ([www.inive.org](http://www.inive.org)).

## Programme (Brussels time)

10:00 **WELCOME & INTRODUCTION**

Valérie Leprince (Cerema, France)

10:05 **ISO 9972 AND CONSTRAINTS ON ZERO FLOW PRESSURE DIFFERENCE: A COMPREHENSIVE STUDY ON THE INFLUENCE OF STACK EFFECT**

Benedikt Kölsch (Cerema, France)

10:25 **Questions and answers**

10:35 **PRACTICAL RECOMMENDATIONS FOR AIRTIGHTNESS TESTS IN HIGH-RISE BUILDINGS**

Nolwenn Hurel & Valérie Leprince (Cerema, France)

10:55 **Questions and answers**

11:00 **CHALLENGES AND EXPERIENCES OF AIRTIGHTNESS TESTS IN TALL BUILDINGS**

Stefanie Rolfsmeier (BlowerDoor, Germany)

11:20 **Questions and answers**

11:30 **End of the webinar**

### Cost and registration

Participation to the webinar is free but requires you to register for the event. The webinar will be limited to a maximum of 1000 persons. To register, please click on the “Register now” button above.

### What is a webinar?

A webinar is a conference broadcasted on internet. To follow a webinar you must have a computer with a sound card and speakers or headphones. Once logged in the "webinar room", you will be able to see the slides of the presentation and to hear the panellists' comments. You will also be able to ask written questions to the speakers, and to answer on-line surveys.

### Hardware, software

Our webinars are powered by WebEx. The only thing you need is a computer with a sound card and speakers. Before you can log in the "webinar room", WebEx will install the required application. If you are not a WebEx user, please visit: <https://help.webex.com/en-us/landing/ld-7srxjs-WebexWebinars/Webex-Webinars#Join-Webinars> to check the system requirements and be informed on how to join a webinar. Please also join the event at least 10 minutes in advance.

### About TightVent

TightVent Europe ([www.tightvent.eu](http://www.tightvent.eu)) aims at facilitating exchanges and progress on building and ductwork airtightness issues, including the organisation of conferences and workshops. It fosters experience sharing as well as knowledge production and dissemination on practical issues such as specifications, design, execution, control, etc., taking advantage of the lessons learnt from pioneering work while keeping in mind the need for adequate ventilation.

TightVent Europe has been initiated by INIVE (International Network for Information on Ventilation and Energy Performance) with at present the financial and/or technical support of the following partners: Lindab, MEZ-TECHNIK, Retrotec, Acin Instrumenten, BCCA, BlowerDoor GmbH, dooApp, Soudal, Eurima, Gonal, SIGA and BPIE.

### About AIVC

Created in 1979, the Air Infiltration and Ventilation Centre ([www.aivc.org](http://www.aivc.org)) is one of the projects/annexes running under the International Energy Agency's Energy in Buildings and Communities (IEA-EBC) Programme. With the support of its member countries as well as key experts and two associations (REHVA, IBPSA, ISIAQ), the AIVC offers industry and research organisations technical support aimed at better understanding the ventilation challenges and optimising energy efficient ventilation.

The AIVC activities are supported by the following countries: Australia, Belgium, China, Denmark, France, Italy, Ireland, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Spain, Sweden, UK and USA.

### About INIVE

INIVE (International Network for Information on Ventilation and Energy Performance) was created in 2001. The main reason for founding INIVE was to set up a worldwide acting network of excellence in knowledge gathering and dissemination. At present, INIVE has as member organisations Buildwise, CETIAT, Ghent University, IBP-Fraunhofer, KU Leuven.

INIVE is coordinating and/or facilitating various international projects, e.g. AIVC ([www.aivc.org](http://www.aivc.org)), TightVent Europe ([www.tightvent.eu](http://www.tightvent.eu)), venticool (<https://venticool.eu/>) and Dynastee ([www.dynastee.info](http://www.dynastee.info)). INIVE has also coordinated the ASIEPI project dealing with the evaluation of the implementation and impact of the EU Energy Performance of Buildings Directive, the QUALICHeCK project aiming towards improved compliance and quality of the works for better performing buildings, BUILD UP the European portal on Energy Efficiency and the EPBD feasibility study 19a.