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Thermal performance of buildings and materials - Determination of specific airflow rate in buildings - Tracer gas dilution method (ISO 12569:2017)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

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Performance thermique des bâtiments et des matériaux - Détermination du débit d'air spécifique dans les bâtiments - Méthode de dilution de gaz traceurs (ISO 12569:2017) Wärmetechnisches Verhalten von Gebäuden und Werkstoffen - Bestimmung des spezifischen Luftvolumenstroms in Gebäuden -Indikatorgasverfahren (ISO 12569:2017)

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EN ISO 12569:2017 (E)

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European foreword

This document (EN ISO 12569:2017) has been prepared by Technical Committee ISO/TC 163 "Thermal performance and energy use in the built environment" in collaboration with Technical Committee CEN/TC 89 "Thermal performance of buildings and building components" the secretariat of which is held by SIS.

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INTERNATIONAL STANDARD

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Thermal performance of buildings and materials — Determination of specific airflow rate in buildings — Tracer gas dilution method

Performance thermique des bâtiments et des matériaux — Détermination du débit d'air spécifique dans les bâtiments — Méthode de dilution de gaz traceurs





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Foreword

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Introduction

The aim of ventilation is to maintain a proper hygienic status of the room by introducing outdoor air and diluting contaminants, heat, moisture or odour generated in the room, and evacuating them. In terms of energy savings, it is also important to keep the ventilation at the required rate, in order to reduce heat loss and heat gain under air conditioning as much as possible. Measurement of airflow rates is often necessary, for example, to check if the performance of a ventilation system is as intended, to assess the source strength of contaminants, to ensure that contaminants are properly eliminated, etc. The methods described here can be used to measure the ventilation rate or the specific airflow rate.

Thermal performance of buildings and materials — Determination of specific airflow rate in buildings — Tracer gas dilution method

1 Scope

This document establishes methods to obtain the ventilation rate or specific airflow rate in a building space (which is considered to be a single zone) using a tracer gas.

The measurement methods apply for spaces where the combined conditions concerning the uniformity of tracer gas concentration, measurement of the exhaust gas concentration, effective mixed zone and/or fluctuation of ventilation are satisfied.

This document provides three measurement methods using a tracer gas: concentration decay method, continuous dose method, and constant concentration method.

NOTE Specific measurement conditions are given in Table 1.

2 Normative references

There are no normative references in this document.

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