

DIN EN ISO 9972:2018-12 (E)

Thermal performance of buildings - Determination of air permeability of buildings - Fan pressurization method (ISO 9972:2015)

Contents

	Page
European foreword	4
Foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms, definitions, and symbols	7
3.1 Terms and definitions	7
3.2 Symbols	9
4 Apparatus	10
4.1 General	10
4.2 Equipment	10
4.2.1 Air-moving equipment	10
4.2.2 Pressure-measuring device	10
4.2.3 Air flow rate measuring system	10
4.2.4 Temperature-measuring device	10
5 Measurement procedure	10
5.1 Measurement conditions	10
5.1.1 General	10
5.1.2 Measured extent	11
5.1.3 Time of measurement	11
5.2 Preparation	11
5.2.1 Building preparation methods	11
5.2.2 Heating, ventilation and air conditioning systems and other building equipment	11
5.2.3 Intentional openings in the envelope	12
5.2.4 Openings inside the measured extent	13
5.2.5 Air-moving equipment	13
5.2.6 Pressure measuring devices	13
5.3 Steps of the procedure	14
5.3.1 Preliminary check	14
5.3.2 Temperature and wind conditions	14
5.3.3 Zero-flow pressure difference	14
5.3.4 Pressure difference sequence	14
6 Expression of results	15
6.1 Reference values	15
6.1.1 Internal volume	15
6.1.2 Envelope area	15
6.1.3 Net floor area	16
6.2 Calculation of the air leakage rate	16
6.3 Derived quantities	19
6.3.1 General	19
6.3.2 Air change rate at reference pressure difference	19
6.3.3 Specific leakage rate (envelope)	19
6.3.4 Specific leakage rate (floor)	20
6.3.5 Effective leakage area	20
6.3.6 Specific effective leakage area (envelope)	20
6.3.7 Specific effective leakage area (floor)	20

7	Test report.....	21
8	Uncertainty.....	21
8.1	General.....	21
8.2	Reference value	22
8.3	Overall uncertainty.....	22
Annex A (informative) Description of equipment used to pressurize buildings.....		23
Annex B (informative) Dependence of air density on temperature, dew point, and barometric pressure.....		25
Annex C (informative) Recommended procedure for estimating uncertainty in derived quantities.....		26
Annex D (informative) Beaufort scale of wind (extract).....		29
Annex E (informative) Detection of the leakage location.....		32