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AMENDMENT 1
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Thermal insulation — Building elements — In-situ measurement of thermal resistance and thermal transmittance —

Part 2: Infrared method for frame structure dwelling

AMENDMENT 1: Example of calculation of uncertainty analysis

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Part 2:
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AMENDMENT 1: Example of calculation of uncertainty analysis

Annex E

Replace Annex E with the following annex:

Annex E
(informative)

The calculation example of uncertainty analysis

NOTE This is a simplified uncertainty analysis example for illustrative purpose.

E.1 Listing of uncertainty factors

Table E.1 shows the listing of uncertainty factors.

Table E.1 — Uncertainty factors in measuring the thermal transmittance

Measurement of heat transfer coefficient	Difference in temperature between the heat transfer coefficient sensor and environmental temperature (ET sensor)	Measurement of surface temperature	IR camera specification	Whichever is greater of 2 %, measurement value or ±2 °C
			Thermo-couple specification	±0,2 °C
	Measurement of heat flow meter output of the heat transfer coefficient sensor	Measurement of voltage	Data logger specification	±6 µV
Heat flow rate	Difference in temperature between the surface temperature of the heat transfer coefficient sensor and environmental temperature (ET sensor)	Measurement of surface temperature	IR camera specification	Whichever is greater of 2 %, measurement value or ±2 °C
			Thermo-couple specification	±0,2 °C
	Measurement of heat flow meter output of the heat transfer coefficient sensor	Measurement of voltage	Data logger specification	±6 µV
	Measurement of surface temperature of the wall	Measurement of surface temperature	IR camera specification	±2 % of measurement value
Thermal transmittance	Difference in temperature between the surface temperature of the heat transfer coefficient sensor and environmental temperature (ET sensor)	Measurement of surface temperature	IR camera specification	Whichever is greater of 2 %, measurement value or ±2 °C
			Thermo-couple specification	±0,2 °C
	Measurement of environmental temperature (measurement of surface temperature of ET sensor)	Measurement of surface temperature	IR camera specification	Whichever is greater of 2 %, measurement value or ±2 °C
			Thermo-couple specification	±0,2 °C
	Measurement of heat flow meter output of the heat transfer coefficient sensor	Measurement of voltage	Data logger specification	±6 µV