

DIN EN ISO 12631:2013-01 (E)

Thermal performance of curtain walling - Calculation of thermal transmittance (ISO 12631:2012)

Contents		Page
Foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms, definitions, symbols and units	6
3.1	Terms and definitions	6
3.2	Symbols and units	7
3.3	Subscripts	7
3.4	Superscripts	8
4	Geometrical characteristics	8
4.1	Main principles	8
4.2	Internal depth	10
4.3	Boundaries of curtain wall structures	10
5	Cut-off planes and partitioning of thermal zones	13
5.1	Rules for thermal modelling	13
5.2	Cut-off planes of the geometrical model	13
6	Calculation of curtain wall transmittance	13
6.1	Methodologies	13
6.2	Single assessment method	14
6.3	Component assessment method	20
6.4	Thermal transmittance of a curtain wall built of different elements	25
7	Input data	25
8	Report	26
8.1	Section drawings	26
8.2	Overview drawing of the whole curtain wall element	27
8.3	Values used for calculation	27
8.4	Presentation of results	27
Annex A (informative)	Guidance for calculating the thermal transmittance U_{cw} of curtain walling using the two methods	28
Annex B (informative)	Linear thermal transmittance of junctions	29
Annex C (normative)	A method for calculating the thermal effect of screws using a 2D numerical method and the procedures specified in ISO 10077-2:2012	37
Annex D (normative)	Ventilated and unventilated air spaces	40
Annex E (informative)	Component method: Calculation example	43
Annex F (informative)	Single assessment method: Calculation example	49
Annex G (normative)	Parallel routes in normative references	52
Bibliography		53