

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 Ucw 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