

DIN EN 1279-1:2018-10 (E)

Glass in Building - Insulating glass units - Part 1: Generalities, system description, rules for substitution, tolerances and visual quality

Contents		Page
European foreword		4
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Symbols and abbreviations for edge seal	14
5	Requirements	15
5.1	General	15
5.2	Glass panes/components	16
5.2.1	General	16
5.2.2	Basic glasses	16
5.2.3	Special basic glasses	16
5.2.4	Strengthened glasses	16
5.2.5	Thermally toughened safety glasses	17
5.2.6	Laminated glasses	17
5.2.7	Coated glasses	17
5.2.8	Surface worked glass	17
5.2.9	Curved glass	17
5.3	Cavity fillings	18
5.4	Cavity inserts	18
5.5	Shapes	18
6	Requirements	18
6.1	Durability of insulating glass units	18
Annex A (normative) System description of insulating glass units		22
Annex B (normative) Examples of insulating glass unit systems		23
B.1	General	23
B.2	Organic sealed insulating glass units with rigid hollow spacer	23
B.3	Insulating glass units sealed by hot applied flexible spacer incorporating desiccant	23
B.4	Insulating glass units with prefabricated flexible spacer	24
B.5	Organic sealed insulating glass units with U-channel shaped spacer incorporating desiccant matrix	25
B.6	Air filled insulating glass units sealed by a metal strip between the glass panes	27
Annex C (informative) Compatibility of components within an insulating glass unit system		28
C.1	Compatibility	28
C.2	Diffusion and equilibrium	28
C.3	Contact	28
C.4	Interaction	28
C.5	Factors affecting compatibility	28
Annex D (normative) Rules to substitute materials and components, possible changes within components and addition in the system description		30

D.1	General comments	30
D.2	Tables of possibilities to substitute materials and components, and of possible changes within components	30
D.3	Addition of components	35
D.3.1	Addition of cavity inserts without change of the permeation barrier design	35
D.3.2	Addition of cavity inserts with change of the permeation barrier design	35
Annex E (informative) Edge seal strength comparison in case of substituting outer sealant		36
Annex F (normative) Visual quality of insulating glass units		37
F.1	General	37
F.2	Observation conditions	37
F.3	Insulating glass unit made of two panes of monolithic glass	38
F.3.1	Spot faults	38
F.3.2	Residues	39
F.3.3	Linear / extended fault	39
F.4	Insulating glass units other than made of two monolithic glass panes	39
F.5	Insulating glass unit containing a heat treated glass	40
F.6	Edge defects	40
F.7	Tolerance on spacer straightness	40
F.8	Curved insulating glass units	41
Annex G (informative) Other visual aspects of insulating glass units		42
G.1	General	42
G.2	Inherent colour	42
G.3	Difference in insulating glass unit colour	42
G.4	Interference effect	42
G.5	Specific effect due to barometric conditions	42
G.6	Multiple reflections	42
G.7	Anisotropy (iridescence)	43
G.8	Condensation on the external surface of the insulating glass unit	43
G.9	Wetting of glass surfaces	43
Bibliography		44