

DIN EN 16477-1:2017-07 (English h)

Glass in building - Painted glass for internal use - Part 1: Requirements

Contents		Page
European foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4	Materials	8
4.1	Glass products	8
4.1.1	General	8
4.1.2	Glass substrates	8
4.2	Paint coating(s)	8
5	Dimensional requirements	9
5.1	Thickness	9
5.2	Length, width and squareness	9
5.2.1	Width B and length H	9
Figure 1 -- Relationship between length, width and direction of flaw		9
5.2.2	Methods of measuring dimensions and squareness	9
Figure 2 -- Determination of dimensions		10
Figure 3 -- Determination of diagonals		10
6	Quality requirements	11
6.1	General	11
6.2	Quality assessment and inspection methods for painted glass	11
6.2.1	Visual inspection method	11
6.2.2	Measurement of the E^*	11
6.2.3	Painted glass faults	11
6.2.4	Edge faults	11
6.3	Acceptance levels	12
6.3.1	Glass faults	12
Table 1 -- Acceptance levels of faults in painted glass in stock/standard sizes		12
Table 2 -- Acceptance levels of faults in painted glass in as-cut finished sizes		13
Figure 4 -- Determination of central and border zone		13
6.3.2	Edge faults for finished sizes	13
Figure 5 -- Entrant and emergent faults - surface view		14
Figure 6 -- Entrant faults - edge view		14
6.3.3	Colour variation between production batches or in one installation	15
7	Classification of painted glass	15
8	Testing of painted glass	16
8.1	Durability	16

8.1.1	General	16
8.1.2	Test specimens	16
8.1.3	High humidity test (condensation water test)	16
8.1.4	High temperature test without water	17
8.1.5	Radiation resistance test	17
8.2	Paint coating(s) adhesion	18
8.3	Summary of the tests and requirements, by classes	19
Table 3 -- Summary of the test condition and requirements on painted glass		19
Annex A (normative) Condensation water test in constant atmosphere		20
A.1	Purpose and scope	20
A.2	Test conditions	20
A.3	Climatic testing device	20
A.3.1	Climatic chamber	20
A.3.2	Installation of the climatic chamber	21
A.3.3	Device of the accommodation of the specimens (specimen holder)	21
A.4	Procedure	21
A.4.1	Filling the floor trough	21
A.4.2	Specimens	21
A.4.3	Arrangement of the specimens	21
A.4.4	Test sequence	22
A.4.4.1	Start up	22
A.4.4.2	Condensation water constant atmosphere	22
A.4.5	End of test	22
A.4.6	Interruption	22
A.4.7	Cleaning procedure	22
A.5	Test report	22
Figure A.1 -- Example of a condensation water climatic testing device with glass walls		23
Annex B (normative) Determination of the E^*		24
B.1	General	24
B.2	Colour quantification	24
B.3	Measurement of the colour	24
B.4	Calculation of E^*	25
Annex C (informative) Fixing of painted glass and cleaning after installation		26
C.1	General	26
C.2	Factors affecting durability	26
Bibliography		27