

INTERNATIONAL STANDARD

**ISO
1095**

Third edition
1989-09-15

Shipbuilding and marine structures — Toughened safety glass panes for side scuttles

*Construction navale et structures maritimes — Verres de sécurité trempés pour
hublots de navires*



Reference number
ISO 1095 : 1989 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 1095 was prepared by Technical Committee ISO/TC 8, *Shipbuilding and marine structures*.

This third edition cancels and replaces the second edition (ISO 1095 : 1976) : definitions have been deleted, being replaced by a reference to ISO 6345; the reference to sheet glass has been deleted; the tolerance for parallelism has been deleted; the clause on maximum pressure head has been deleted; and sampling is allowed in clause 8 on testing.

ISO 1095 forms one of a series which also includes the following:

ISO 614 : 1988, *Shipbuilding and marine structures — Toughened safety glass panes for rectangular windows on side scuttles — Punch method of non-destructive strength testing*.

ISO 3254 : 1988, *Shipbuilding and marine structures — Toughened safety glass panes for rectangular windows*.

Shipbuilding and marine structures — Toughened safety glass panes for side scuttles

1 Scope

This International Standard specifies materials and finish, dimensions for interchangeability, tolerances and flatness, testing, marking and designation of toughened safety glass panes for side scuttles complying with ISO 1751.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 614 : 1988, *Shipbuilding and marine structures — Toughened safety glass panes for rectangular windows and side scuttles — Punch method of non-destructive strength testing*.

ISO 1751 : 1977, *Shipbuilding — Ships' side scuttles*.

ISO 6345 : —¹⁾, *Shipbuilding and marine structures — Windows — Vocabulary*.

3 Definitions

For the purposes of this International Standard, the definitions given in ISO 6345 apply.

4 Material

Toughened safety glass shall be manufactured of plate glass, either float or polished.

5 Finish

Toughened safety glass may be either

- clear (code No. 1),
- obscured (code No. 2).

NOTE — The process of obscuring transparent glass is carried out before the procedure of toughening.

6 Dimensions and tolerances

6.1 Diameter, thickness and nominal size

The diameters, d , and the nominal thicknesses, t , of toughened safety glass panes for side scuttles complying with the requirements of ISO 1751 are shown in figure 1 and given in table 1. They apply to clear glass panes and to glass panes with an obscured surface on one side.

Table 1

Dimensions in millimetres

Nominal size	d		t					
	min.	max.	6 ± 0,2	8 ± 0,3	10 ± 0,3	12 ± 0,3	15 ± 0,5	19 ± 1
200	213	215	X	X	X	O	O	
250	263	265	X	X	O	X		O
300	316	319		X	X	O	X	
350	366	369		X		X	X	O
400	416	419			X	X	O	X
450	466	469			X		X	

NOTE — X: for clear glass panes and obscured glass panes;
O: for obscured glass panes only.

1) To be published.

The nominal size given in table 1 is the clear light diameter of the side scuttle.

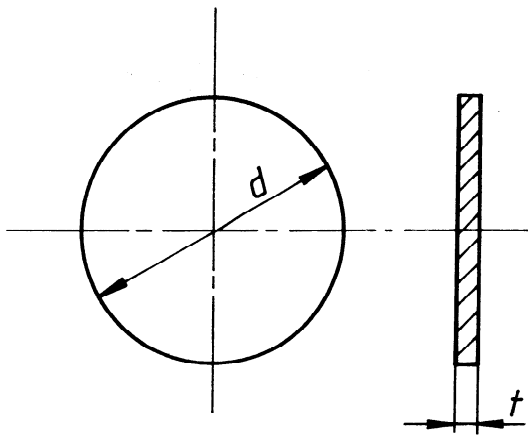


Figure 1 — Dimensions of glass pane

6.2 Edges

All edges shall be arrissed and finished to remove sharpness and roughness. Edges of glass panes of nominal thickness over 12 mm shall be either ground flat and arrissed or finished by some other such process, providing the finished diameter conforms to the dimensional tolerances specified in table 1.

The width *s* and depth *y* of the arris (see figure 2) shall not exceed the dimensions given in table 2. Arrissing and/or grinding shall be carried out before toughening the glass.

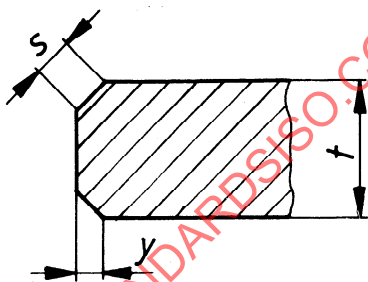


Figure 2 — Glass edges

Table 2
Dimensions in millimetres

<i>t</i>	<i>s</i> max.	<i>y</i> max.
6	2	1,5
8		
10		
12	2,5	1,8
15		
19		

7 Flatness

Bow, *g*, in glass panes (see figure 3) shall not exceed the values given in table 3.

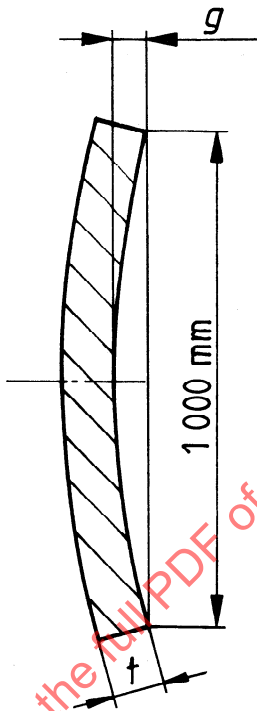


Figure 3 — Flatness

Table 3
Dimensions in millimetres

<i>t</i>	<i>g</i>
6	3
8	2
10	
12	
15	
19	

8 Testing

The glass panes shall be tested in accordance with ISO 614.

8.1 Sampling of glass panes

Each batch of glass panes shall be tested separately.

NOTE — A batch is defined as “a quantity of glass panes of the same nominal size and nominal thickness, produced in the same process under consistent controlled conditions”.

Where a batch consists of four glass panes or less, each of the glass panes shall be tested.

Where a batch consists of more than four glass panes, the test shall be carried out on a random sample of four glass panes, or on 2 % of the batch, whichever figure is the greater.

8.2 Acceptance conditions

The following acceptance conditions are specified.

- a) If each sample glass pane tested remains unbroken, the whole batch shall be accepted.
- b) If one sample glass pane breaks during the test, a complete re-test shall be carried out on a further sample taken from the same batch.
- c) If more than one glass pane breaks in the first test, the batch shall be rejected.

9 Designation

Glass panes conforming to this International Standard shall be designated by the following indications, in the order given:

- a) denomination: Glass pane;
- b) number of this International Standard: ISO 1095;
- c) nominal size (see table 1);
- d) nominal thickness of the glass pane (see table 1);
- e) finish (see clause 5).

EXAMPLE

The designation for a toughened safety glass pane of nominal size = 350 mm and nominal thickness $t = 12$ mm, clear finish (1) shall be

Glass pane ISO 1095-350 × 12-1

10 Marking

Each glass pane shall be marked as indicated in ISO 614.

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