

BS ISO 11485-1:2011



BSI Standards Publication

# Glass in building — Curved glass

Part 1: Terminology and definitions

## National foreword

This British Standard is the UK implementation of ISO 11485-1:2011.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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# INTERNATIONAL STANDARD

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Glass in building — Curved glass —

Part 1:  
Terminology and definitions

Verre dans la construction — Verre bombé — Partie 1: Terminologie et définitions



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## Foreword

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ISO 11485-1 was prepared by Technical Committee ISO/TC 160, Glass in building, Subcommittee SC 1, Product considerations.

ISO 11485 consists of the following parts, under the general title Glass in building — Curved glass:

- Part 1: Terminology and definitions
- Part 2: Quality requirements
- Part 3: Requirements for tempered and laminated curved safety glass<sup>1)</sup>

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1) Under preparation.

# Glass in building — Curved glass —

## Part 1: Terminology and definitions

### 1 Scope

This part of ISO 11458 specifies terminology and definitions for curved glass used in general building construction, furniture, display and various other non-automotive applications.

### 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 2.1

curved glass

bent glass (US)

sheet of annealed glass curved by a heating process

#### 2.2

curved annealed glass

glass that is curved and then cooled slowly so that it recovers its initial mechanical characteristics

#### 2.3

curved patterned glass

flat patterned glass that has been formed into a curved shape

#### 2.4

curved wired glass

flat wired glass that is formed into a curved shape

#### 2.5

curved insulating glass

two panes of curved glass that have been fabricated into an insulating glass unit

#### 2.6

curved tempered glass

flat glass that is formed into a curved shape by heating above a specified temperature and then subjected to a rapid and controlled cooling process in order to give it greatly increased resistance to thermal and mechanical stress

NOTE In this International Standard, the term “tempered” also means “thermally toughened”.

#### 2.7

curved heat-soaked tempered glass

tempered curved glass that has been post-processed using a specified heat-soak cycle with the intent of isolating possible nickel sulfide inclusions

#### 2.8

curved tempered enamelled glass

curved tempered glass which has a ceramic frit fired into the surface during the tempering process

NOTE 1 After tempering, the ceramic frit becomes an integral part of the glass.

NOTE 2 The application of the ceramic frit may be by a continuous or discontinuous application, e.g, screen printing.

2.9  
curved heat-strengthened glass  
flat glass that has been formed into a shape and heat-strengthened

NOTE The specifications of curved heat-strengthened glass are under consideration.

2.10  
curved chemically strengthened glass  
flat glass that has been formed into a shape and chemically strengthened

2.11  
curved laminated glass  
assembly consisting of curved glass sheets joined together with cast-in-place resins or films

2.12  
curved laminated tempered glass  
assembly consisting of curved tempered sheets joined together with cast-in-place resins or films

2.13  
curved safety glass  
curved glass that in the case of accidental breakage, reduces the risk of cutting or piercing injuries and/or offers residual resistance by retaining the glass fragments

NOTE 1 The curved glass can be tempered or laminated for example.

NOTE 2 Curved safety glass is classified according to ISO 11485-2.

2.14  
concave  
“hollow” face of curved glass

2.15  
convex  
“bulge” face of curved glass

2.16  
angle  
 $\alpha$   
angular measurement of a segment of a curve in degrees

NOTE See Figure 1.

2.17  
inner radius  
 $R_i$   
radius of concave face

NOTE See Figures 1 and 2.

2.18  
outer radius  
 $R_e$   
radius of convex face

NOTE See Figures 1 and 2.

2.19  
arc  
A  
length of the curved portion

NOTE 1 See Figure 1.

NOTE 2 An arc is described as either interior arc ( $A_i$ ) or exterior arc ( $A_e$ ).

2.20  
chord of the arc  
 $C_a$   
line segment that connects end points of an arc

NOTE 1 See Figure 1.

NOTE 2 A chord is described as either an interior chord ( $C_{ai}$ ) or an exterior chord ( $C_{ae}$ ). The interior chord ( $C_{ai}$ ) corresponds to the interior arc ( $A_i$ ) and the exterior chord ( $C_{ae}$ ) corresponds to the exterior arc ( $A_e$ ).

2.21  
rise  
depth  
F  
segment between the middle of the arc of the circle and the middle of the chord that subtends the arc

NOTE See Figure 1.

2.22  
girth  
G  
distance around the concave or convex surface measured perpendicular to the height including any flats

NOTE See Figure 1.

2.23  
chord of the girth  
 $C_g$   
line segment that connects end points of a girth

NOTE See Figure 1.

2.24  
depth  
 $P_r$   
maximal distance between the upper part of the girth (G) and the corresponding chord ( $C_d$ )

NOTE See Figure 1.

2.25  
flat  
B  
flat segments forming a part of curved glass

NOTE See Figure 1.

2.26  
length  
L  
dimension of the straight edge of the curved glass

NOTE See Figure 1.

2.27

thickness

T

nominal thickness of the final product

NOTE 1 In a curved insulating glass, the thickness is the sum of the thicknesses of the inner glass ( $T_i$ ), the gas space ( $T_a$ ) and the outer glass ( $T_e$ ).

NOTE 2 See Figures 1 and 2.

2.28

plan

document containing the geometry of the product to be made

2.29

drawing

graphic details defining the geometry of the product to be made

2.30

lay out

representation of scale 1:1 of the curvature profile

2.31

template

three-dimensional reproduction at scale 1:1 to determine the dimensions and shape of the product to be made

2.32

cutting template

form (pattern) that facilitates accuracy in the glass forming process by providing the proper curved glass information for size, shape and contour

2.33

model

product in glass or other material at scale 1:1 that is an identical reproduction

2.34

curvature profile

geometrical shape of the curved part of the curved glass

2.35

shape accuracy

$P_C$

accuracy of the contoured form including curvature, arc(s), and even flats

2.36

cross-curve deviation

sag

deviation from a straight line or reference curve perpendicular to the curvature measured on the concave side

2.37

edge straightness deviation

warp

$R_B$

deviation from straightness of the straight edges of the glass

2.38

twist deviation

V

one or more of the corners of the glass are not in the same plane

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