

SVENSK STANDARD

SS-EN 1036-2:2008

Fastställt/Approved: 2008-02-25

Publicerad/Published: 2008-03-18

Utgåva/Edition: 1

Språk/Language: engelska/English

ICS: 81.040.20

Byggnadsglas – Silverbelagt floatglas till speglar för inomhusbruk – Del 2: Utvärdering av överensstämmelse: produktstandard

Glass in building – Mirrors from silver-coated float glass for internal use – Part 2: Evaluation of conformity; product standard

This preview is downloaded from www.sis.se. Buy the entire standard via <https://www.sis.se/std-65113>

Hitta rätt produkt och ett leveranssätt som passar dig

Standarder

Genom att följa gällande standard både effektiviserar och säkrar du ditt arbete. Många standarder ingår dessutom ofta i paket.

Tjänster

Abonnemang är tjänsten där vi uppdaterar dig med aktuella standarder när förändringar sker på dem du valt att abonnera på.

På så sätt är du säker på att du alltid arbetar efter rätt utgåva.

e-nav är vår online-tjänst som ger dig och dina kollegor tillgång till standarder ni valt att abonnera på dygnet runt. Med e-nav kan samma standard användas av flera personer samtidigt.

Leveranssätt

Du väljer hur du vill ha dina standarder levererade. Vi kan erbjuda dig dem på papper och som pdf.

Andra produkter

Vi har böcker som underlättar arbetet att följa en standard. Med våra böcker får du ökad förståelse för hur standarder ska följas och vilka fördelar den ger dig i ditt arbete. Vi tar fram många egna publikationer och fungerar även som återförsäljare. Det gör att du hos oss kan hitta över 500 unika titlar. Vi har även tekniska rapporter, specifikationer och "workshop agreement".

Matriser är en översikt på standarder och handböcker som bör läsas tillsammans. De finns på sis.se och ger dig en bra bild över hur olika produkter hör ihop.

Standardiseringsprojekt

Du kan påverka innehållet i framtida standarder genom att delta i någon av SIS ca 400 Tekniska Kommittéer.

Find the right product and the type of delivery that suits you

Standards

By complying with current standards, you can make your work more efficient and ensure reliability. Also, several of the standards are often supplied in packages.

Services

Subscription is the service that keeps you up to date with current standards when changes occur in the ones you have chosen to subscribe to. This ensures that you are always working with the right edition.

e-nav is our online service that gives you and your colleagues access to the standards you subscribe to 24 hours a day. With e-nav, the same standards can be used by several people at once.

Type of delivery

You choose how you want your standards delivered. We can supply them both on paper and as PDF files.

Other products

We have books that facilitate standards compliance. They make it easier to understand how compliance works and how this benefits you in your operation. We produce many publications of our own, and also act as retailers. This means that we have more than 500 unique titles for you to choose from. We also have technical reports, specifications and workshop agreements.

Matrices, listed at sis.se, provide an overview of which publications belong together.

Standardisation project

You can influence the content of future standards by taking part in one or other of SIS's 400 or so Technical Committees.

Europastandarden EN 1036-2:2008 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 1036-2:2008.

The European Standard EN 1036-2:2008 has the status of a Swedish Standard. This document contains the official English version of EN 1036-2:2008.

! © Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

! © Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Upplysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna upplysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), tel +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

SIS Förlag AB, SE 118 80 Stockholm, Sweden. Tel: +46 8 555 523 10. Fax: +46 8 555 523 11.
E-mail: sis.sales@sis.se Internet: www.sis.se

EUROPEAN STANDARD

EN 1036-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2008

ICS 81.040.20

English Version

Glass in building - Mirrors from silver-coated float glass for internal use - Part 2: Evaluation of conformity; product standard

Verre dans la construction - Miroirs en glace argentée pour l'intérieur - Partie 2: Evaluation de la conformité; norme de produit

Glas im Bauwesen - Spiegel aus silberbeschichtetem Floatglas für den Innenbereich - Teil 2: Konformitätsbewertung; Produktnorm

This European Standard was approved by CEN on 29 December 2007.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents	Page
Foreword.....	4
1 Scope.....	5
2 Normative references	5
3 Terms and definitions.....	6
4 Requirements	6
4.1 Product description	6
4.2 Conformity with the definition of mirror.....	7
4.3 Determination of the characteristic's performances.....	7
4.3.1 Characteristics of mirror	7
4.3.2 Determination of characteristics of mirrors	8
4.4 Durability.....	9
4.5 Dangerous substances.....	10
5 Evaluation of conformity	10
5.1 General.....	10
5.2 Initial type testing of the product (see 5.1, 2))	10
5.2.1 General.....	10
5.2.2 Initial type testing of mirror	12
5.2.3 Initial type testing of characteristic's performances.....	13
5.3 Factory production control and inspection of samples in accordance with a prescribed test plan (see 5.1, 1) a)).....	13
5.4 Initial inspection of factory and of factory production control (see 5.1, 1) b)).....	14
5.5 Continuous surveillance and assessment of the factory production control (see 5.1, 1) c)).....	15
6 Marking and/or labelling.....	15
6.1 General.....	15
6.2 Product marking.....	15
6.3 Product characteristics	15
6.4 "Characteristics/performance identification paper"	15
Annex A (normative) Factory Production Control (FPC).....	17
A.1 Factory Production Control (FPC) requirements.....	17
A.1.1 General.....	17
A.1.2 Organisation	17
A.1.3 Control system	17
A.2 Marking	18
A.3 Inspection and testing tables of mirror production	18
A.3.1 Information in Table A.1	18
A.3.2 Production control	19
A.3.3 Product control	19
A.3.4 Use of proxy testing.....	19
Annex B (informative) Tests for ensuring conformity during factory production control.....	22
B.1 Information on ensuring durability conformity.....	22
B.2 Dip test	22
B.2.1 General.....	22
B.2.2 Test method	22
B.2.3 Acceptance criteria	22
Annex C (informative) Provisions for voluntary involvement of third party(ies).....	23
C.1 General.....	23

C.2	Voluntary tasks for third parties	23
C.3	Marking and labelling	23
Annex ZA (informative) Clauses of this European Standard addressing the provisions of		
	EU Construction Products Directive	24
ZA.1	Scope and relevant characteristics	24
ZA.2	Procedure(s) for the attestation of conformity of mirror products	26
ZA.2.1	System(s) of attestation of conformity	26
ZA.2.2	EC Certificate and Declaration of conformity	29
ZA.3	CE marking and labelling	31
	Bibliography	34

SS-EN 1036-2:2008 (E)

Foreword

This document (EN 1036-2:2008) has been prepared by Technical Committee CEN/TC 129 “Glass in building”, the secretariat of which is held by NBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2008, and conflicting national standards shall be withdrawn at the latest by August 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA which is an integral part of this document.

EN 1036 *Glass in building — Mirrors from silver-coated float glass for internal use* consists of the following parts:

Part 1: Definition, requirements and test methods

Part 2: Evaluation of conformity; product standard

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies requirements, the evaluation of conformity and the factory production control of flat mirrors from silver-coated float glass for internal use in buildings.

NOTE For glass products with electrical wiring or connections for, e.g. alarm or heating purposes, other directives, e.g. Low Voltage Directive, may apply.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 356, *Glass in building — Security glazing — Testing and classification of resistance against manual attack*

EN 410, *Glass in building — Determination of luminous and solar characteristics of glazing*

EN 572-1, *Glass in building — Basic soda lime silicate glass products — Part 1: Definition and general physical and mechanical properties*

EN 572-2, *Glass in building — Basic soda lime silicate glass products — Part 2: Float glass*

EN 572-8, *Glass in building — Basic soda lime silicate glass products — Part 8: Supplied and final cut sizes*

EN 673, *Glass in building — Determination of thermal transmittance (U value) — Calculation method*

EN 1036-1:2007, *Glass in building — Mirrors from silver-coated float glass for internal use — Part 1: Definitions, requirements and test methods*

EN 1063, *Glass in building — Security glazing — Testing and classification of resistance against bullet attack*

EN 12600, *Glass in building — Pendulum test — Impact test method and classification for flat glass*

EN 12758, *Glass in building — Glazing and airborne sound insulation — Product descriptions and determination of properties*

EN 12898, *Glass in building — Determination of the emissivity*

EN 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 13501-2, *Fire classification of construction products and building elements — Part 2: Classification using data from fire resistance tests, excluding ventilation services*

EN 13501-5, *Fire classification of construction products and building elements — Part 5: Classification using data from external fire exposure to roofs tests*

EN 13541, *Glass in building — Security glazing — Testing and classification of resistance against explosion pressure*

SS-EN 1036-2:2008 (E)

3 Terms and definitions

For the purpose of this document, the terms and definitions given in EN 1036-1:2007 and the following apply.

3.1

Initial Type Testing (ITT)

determination of the performance of a product (characteristic, durability), on the basis of either actual tests or other procedures (such as conventional, standardised, tabulated or general accepted values, standardised or recognised calculation methods, test reports when made available,...), in accordance with this European Standard that demonstrates compliance with this European Standard

3.2

test report

document that covers the results of tests undertaken on a representative sample of the product from production or on a prototype design of the product

3.3

product description

document that details the relevant parameters, e.g. process conditions, structure, for defining a product that complies with the standard. It includes specific reference(s) to characteristics that are modified by the production process

3.4

significant change

variation in performance beyond the permitted tolerance for the characteristic

4 Requirements

4.1 Product description

For conformity purposes the mirror manufacturer is responsible for the preparation and maintenance of the product description. This description shall describe the product and/or product families.

Disclosure of the product description shall be at the discretion of the mirror manufacturer or his agent except in the case of regulatory requirements.

The description shall contain at least a normative part. The description may also contain an informative part, when the manufacturer foresees further development of the product.

The normative part of the description shall contain the following information:

- reference to EN 1036-1 and -2 and all other standards with which the manufacturer claims compliance;
- materials making up the layers of the mirror;
- glass substrates.

The layers may be listed either in full, i.e. chemical composition, or by manufacturers' code.

The substitution of materials shall maintain the conformity with the product description. The substituting material can be added to the product description when compliance has been demonstrated.

4.2 Conformity with the definition of mirror

Products shall conform to the definition and fulfil the requirements of mirror as defined in EN 1036-1.

4.3 Determination of the characteristic's performances

4.3.1 Characteristics of mirror

4.3.1.1 General

The characteristics of mirror are in general those of the glass substrate (see 4.3.1.2).

4.3.1.2 Characteristics of the soda lime silicate glass panes used for the production of mirrors

Panes shall be made of soda lime silicate float glass according to EN 572-1, EN 572-2, 572-8.

For the characteristics listed in Table 1, for the soda lime silicate glass panes, generally accepted values or calculated values shall be used.

Since the mirror production process does not change the majority of the characteristics of Table 1 significantly they shall be used for mirrors. The characteristics that are significantly changed are the light transmittance/reflectance and solar heat transmittance/reflectance.

Table 1 — Information on the characteristics of soda lime silicate glass panes, according to EN 572-1, used for the production of mirrors

Characteristic	Symbol	Unit
- density	ρ	kg/m ³
- hardness	HK _{0,1/20}	GPa
- young's modulus	E	Pa
- poisson's ratio	μ	dimensionless
- characteristic bending strength	$f_{g,k}$	Pa
- resistance against sudden temperature changes and temperature differentials		K
- specific heat capacity	c	J/(kg·K)
- coefficient of linear expansion	α	K ⁻¹
- thermal conductivity (for U-value)	λ	W/(m·K)
- mean refractive index to visible radiation	n	dimensionless
- emissivity	ε	dimensionless
- light transmittance	τ_v	dimensionless
- solar direct transmittance	τ_e	dimensionless
- total energy transmittance	g	dimensionless