



General building-authority test certificate

Test certificate number: P-2020-3082

Object: linearly mounted safety glazing

Intended purpose: Barrier according to DIN 18008-4
Administrative instructions Technical Building
Regulations (VV TB Bln) Version 2018/04
Type of construction acc. to C 4.12

Barrier category: B

Systems: BV9900
BV9900S

Applicant: Baros Vision
Asenovgradsko Shose, , next to KCM
Plovdiv Bulgaria

Date of issue: 09.11.2020

Valid until: 08.11.2025

This general building-authority certificate conforms that the object named above can be used in accordance with the State Building Code.

The general building-authority test certificate consists of 7 pages and 2 annexes.



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I. General regulations

1. The general building-authority test certificate does not replace the permits, approvals and certificates legally required for construction projects.
2. The general building-authority test certificate is issued without affect the rights, especially private property rights, of third parties.
3. Regardless of additional regulations under "Special regulations", the manufacturer of the design must provide the user of the construction with copies of the general building-authority test certificate and point out that the general building-authority test certificate must be available at the location of use. Upon request, the authorities involved must be provided with copies of the general building-authority test certificate.
4. The general building-authority test certificate must only be reproduced in its unshortened version. Publication in parts requires the approval of the Labor für Stahl- und Leichtmetallbau GmbH. Texts and drawings of advertising must not contradict the general building-authority test certificate. Translations of the general building-authority test certificate must contain the note "This translation of the German original version was not reviewed by the Labor für Stahl- und Leichtmetallbau GmbH".

II. Special regulations

1 Object and scope of application

1.1 Object

The object of the general building-authority test certificate are glass barriers according to administrative instructions Technical Building Regulations (VV TB Bln) Version 2018/04.

1.2 Scope of application

The object named above is used in accordance with DIN 18008-4, Additional requirements for barrier glazing according to **Category B**.



2 Requirements for the design

2.1 Description of the construction

2.1.1 Mounting

Lower linear support

The glass panes are fixed in U-shaped Aluminum profiles. There are profiles for top mounting (BV9900) and side mounting (BV9900S). The clamping depth of the glass panes is about 100 mm. The clamping of the glass pane is obtained by setting the glass in plastic brackets. With the bracket on the inner side the glass is finally fixed with screws. Two brackets are used for a glass width of up to 800 mm. With a glass width of more than 800, 3 blocks are used. The drawing in annex 1 and 2 show the fixing system of both systems. The load-bearing capacity of the steel substructure under static loads must be proven by submitting the appropriate certificates.

Load-bearing handrail

The upper edges of the panes must be connected with each other by a continuous handrail. In addition to the protection of the upper glass edge, the handrail must ensure that the planned capping load is carried safely at capping height even in case of a failure of one balustrade element.

2.1.2 Glazing

The following glass setups can be used:

Glass built up 1:

fully tempered glass	8,00 mm
Polyvinylbutyral-film (PVB-film)	0,76 mm
fully tempered glass	8,00 mm
overall thickness	16,8 mm

Glass built up 2:

fully tempered glass	10,00 mm
Polyvinylbutyral-film (PVB-film)	0,76 mm
fully tempered glass	10,00 mm
overall thickness	20,8 mm

Only glass products in accordance with DIN 18008-4 may be used. The glass and film thicknesses listed above may be exceeded. The fully tempered glass can be according to EN 12150 or 14179.



All glass constructions with intermediate layers with an appropriate general building-authority certificate may be used as laminated sheet glass.

2.2 Test procedure to be used

The test of the barrier function of the glazing was done according to Appendix A of DIN 18008-4. The bearing capacity under impact loading was tested for the standard dimensions of the described glazing using the pendulum impact test. The test results are documented in test report 2020-3060.

2.3 Use, maintenance and service

The construction must be mounted and secured using suitable measures in such a way that it meets the specified requirements as barrier permanently. The proof of secure anchoring of the glazing construction at the building must follow the applicable technical building regulations.

3 Validity and specifications for dimensioning

3.1 Area of application

The general building-authority test certificate is valid for the design described in section 2. The glazing has a barrier function according to category B. The admissible dimensions are shown in table 1 and 2. Both glass fixing systems 9900 and 9900S can be used.

Tabelle 1: dimensions

Glass built up	Width w [mm]		Glass height h [mm]	
	min	max	Min	max
1 – 2x8 mm	500	optional	500	1297
2 – 2x10 mm	500	optional	500	1472

The pane structure must correspond to the pane structure stated in section 2.1.2.

The regulations for category B glazing must - on principle - be observed in addition to the structure characteristics stated in section 2.1. The glass panes can deviate from a rectangle form according to DIN 18008-4, B.3

3.2 Dimensions

For the application, a calculated proof of bearing capacity under static load according to DIN 18008-4, section 6.1 must be provided for the glazing and mounting constructions.



4 Declaration of conformity

4.1 General

The design described in this general building-authority test certificate requires a declaration of conformity by the user (contractor) in accordance with Building Regulations List A part 3. In this document, the contractor declares for the client that the described design complies with this general building-authority test certificate in all details.

4.2 Production control

A production control must be set up and conducted at every location of application of the design. The production control is understood to be the continuous monitoring of the production by the contractor, with which he ensures that the design produced by him complies with the regulations of this general building-authority test certificate.

The production control must contain the description and test of the raw materials and components.

The results of the production control must be recorded and analysed. The records must contain at least the following information:

- Name of the design with a description of its components
- Date of manufacture and test of the design
- Results of the test and comparison with the requirements
- Signature of the person responsible for production control

The records must be kept for a minimum of five years and submitted to the supreme building authority in charge upon request.

5 Associated regulations

The provisions of DIN 18008-4, Additional requirements for barrier glazing, must be considered for the descriptions. Furthermore, the following standards and information sheets in their current version are referenced:

- [a] Building code for Berlin (BauO Bln) Version 2005/09
- [b] Administrative instructions Technical Building Regulations (VV TB Bln) Version 2018/04
- [c] DIN EN 14449; Glass in building - Laminated glass and laminated safety glass
- [d] DIN 572, Part 1-2; Glass in building - Basic soda lime silicate glass products



- [e] DIN 12150, Part 1; Glass in building - Thermally toughened soda lime silicate safety glass
- [f] DIN 14179, Part 1; Glass in building – Heat soaked Thermally toughened soda lime silicate safety glass
- [g] DIN EN 1863, Part 1; Glass in building - Heat strengthened soda lime silicate glass
- [h] DIN 18545, Part 1; Sealing of glazing with sealants
- [i] DIN 18008, Part 1-2; Glass in Building - Design and construction rules
- [j] Test report 2020-3078; impact test according to DIN 18008-4; Labor für Stahl und Leichtmetallbau GmbH

III. Legal basis

This general building-authority test certificate was issued based on § 19 of the building code for Berlin (BauO Bln) Fassung 2005/09.

IV. Instruction on right to appeal

This general building-authority test certificate can be appealed within one month after issue. The appeal must be submitted in writing or for recording at the Labor für Stahl- und Leichtmetallbau GmbH.

Munich, 09.11.2020

For management and administration



Dipl.-Ing. (FH) A. Lorenz
(head of institute)

