The Formwork Experts.

Lost tie rod 20.0 with Anchoring cone 20.0

Art.-Nr.: 581405000
Art.-Nr.: 581437000

Classification report

smoke control
321030304-A, EN

Institut für Brandschutztechnik
und Sicherheitsforschung

C L A S S I F I C A T I O N R E P O R T

to EN 13501-2:2016

Smoke control door and shutter assemblies comprising various 'DOKA system' form-tie points

Classification report No.: 321030304-A,EN
Date: 19/08/2022
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CREATED BY:	IBS - Institut für Brandschutztechnik und Sicherheitsforschung GmbH Petzoldstraße 45, 4020 Linz, Austria
NOTIFICATION NUMBER:	1322

This classification report consists of **26** pages and shall be neither used in excerpt form nor reproduced in excerpt form.

1. Introduction

This classification report for smoke control fire and shutter assemblies defines the classifications attributable to the '**DOKA form-tie points S200**' component in accordance with the procedure stipulated in EN 13501 Part 2

1.1 General

The '**DOKA form-tie points S200**' component belongs to the '**DOKA form-tie points S200**' product family.

1.2 Description

The '**DOKA form-tie points S200**' component is described either below completely in the test report or in the test reports and/or in the report or in the reports on the field of extended application to which reference is made in 3.1. to substantiate the classification.

2. Test reports/reports on the field of extended application and test results to substantiate the classification

2.1 Test reports/reports on the field of extended application

Details from test reports or reports on the field of extended application are stated here as necessary:

Name of testing body[1]	Name of client	Reference n° of report	Test method and date/rules for the field of extended application and date	Object of testing:
IBS	DOKA	**321030304-1**	S200	Form-tie points

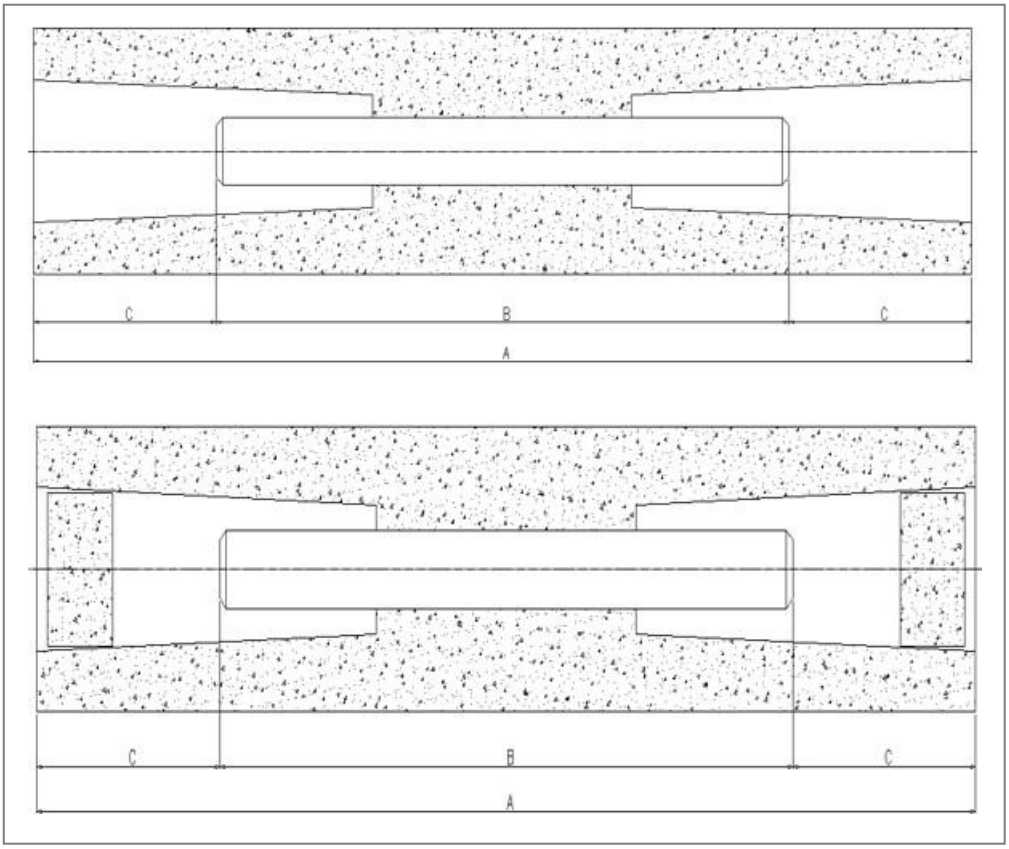
[1] **Name & address and notification number/status of testing body, in alphabetical order:** IBS - Institut für Brandschutztechnik und Sicherheitsforschung GmbH Petzoldstraße 45, 4020 Linz, Austria; notification number: 1322

2.2 Test results

Report n°	Parameter	Results
321030304-1	Leakage rate < 20 m³/h single-leaf self-closing property	Satisfied

Tie rod system 20.0

Lost Tie rod 20.0 with Anchoring cone 20.0



A …. minimum wall thickness 35 cm
B …. Depends on wall thickness

Fixed dimension:
C …. 8.2 cm

Material used:

Article name	Article number
Anchoring cone 20.0 (removed after concrete poured)	58 1437 000
Tie rod 20.0mm non-treated (cut to size)	58 1405 000
Fibre concrete plug 45mm	58 1438 000
REPOXAL two component adhesive	58 1993 000

3. Classification and field of application

3.1 Reference regarding classification

This classification was effected in accordance with EN 13501-2:2016, Section 7.

3.2 Field of application

This classification is valid for the following practical field of application according to EN 16034, 01/01/2015:

The present European standard defines material-independent safety and performance requirements applicable to all fire-resistant and/or smoke-proof products for room division into fire and/or smoke compartments and for use in rescue routes. These products are 'DOKA system' form-tie points designed for the wall penetrations.

The components have the following field of direct application according to Austrian standard ÖNORM EN 1634-3:

The results of the test are directly applicable to similar versions to which one or more of the changes stated below have been made (not subsequently):

- Decorative finishes, such as paint coatings, may be changed.
- The door leaf shall be made of similar materials and the rigidity must be at least the same as that tested. The same or higher rigidity may be assumed for ambient temperature when the door leaf is of a thickness greater than that tested and the adhesives and the jointing techniques are not changed.
- The dimensions of the door leaf shall not be increased, although they may be reduced. However, the numbers of movement limiters such as locks, latches and hinges, shall not be reduced.
- The aspect ratio of the door leaf may be changed, provided that the length of the smoke passage is not increased.
- On smoke control door and shutter assemblies, the arrangement of the door hardware or the door fittings may be changed for ambient temperature.
- The size of the glazed openings may be reduced and the aspect ratio changed vis-a-vis the tested specimens.
- Doors tested in flexible structures may be installed in rigid structures, but not vice versa.

4. Classification

The '**DOKA form-tie points S200**' component is classified by the following combinations of performance parameters and classes, depending on what applies.

S_a
S_{200}

5. Application area

This classification is valid for the following practical application (end use): *see attachment*
This classification is valid for the following practical application (end use): EN 1634-1:2014

Standard reference to point:	**Permissible change compared to the tested design with evaluations and additions as a result of the test results.**
13.1.	**General**
13.1.	The field of direct application defines the allowable changes to the test specimen following a successful fire resistance test. These variations can be applied automatically without the need for the sponsor to seek additional evaluation, calculation or approval.
13.2.	**Materials and construction**
13.2.1.	Unless otherwise stated in the following text, the materials and construction of the doorset or openable window shall be the same as that tested. The number of leaves and the mode of operation (e.g. sliding, single action or double action) shall not be changed.
13.2.2.1.	**Timber construction**
13.2.2.1.	The thickness of the door panel(s) shall not be reduced but may be increased.
	The door panel thickness and/or density may be increased provided the total increase in weight is not greater than 25 %.
	For timber based board products (e.g. particle board, blockboard, etc), the composition (e.g. type of resin) shall not change from that tested. The density shall not be reduced but may be increased.

	The cross-sectional dimensions and/or the density of the timber frames (including rebates) shall not be reduced but may be increased.
13.2.2.2.	**Metal construction**
13.2.2.2.	The dimensions of metal wrap around frames may be increased to accommodate increased supporting construction thickness. The thickness of the metal may also be increased by up to 25 %.
	The type of metal shall not be changed from that tested.
	The number of stiffening elements for uninsulated doors and the number and type of fixings of such members within the panel fabrication may be increased proportionally with the increase in size but shall not be reduced.
13.2.2.3.	**Glazed constructions**
13.2.2.3.	The type of glass and the edge fixing technique, including type and number of fixings per metre of perimeter, shall not be changed from those tested.
	The number of glazed apertures and each of the dimensions (width and height) of glass in each pane included within a test specimen may be: - decreased in proportion with size reductions; or - decreased by a maximum of 25 % for integrity only and/or radiation control constructions and for insulation specimens where the unexposed surface temperature for both the construction and the glazing have been maintained for the classification period; or - reduced for doorsets, without restriction, providing that the total area of the tested pane(s) is less than 15 % of the door leaf or side/over panel area.
	The number of glazed apertures and each of the dimensions of glass in each pane included within a test specimen shall not be increased.
	The distance between the edge of glazing and the perimeter of the door leaf, or the distance between glazed apertures shall not be reduced from those incorporated in test specimens. Other positioning within the door can only be modified if this does not involve the removal or re-positioning of structural members relative to the glazing.
13.2.3.	Decorative finishes
13.2.3.1.	**Paint**
13.2.3.1.	Where the paint finish is not expected to contribute to the fire resistance of the door, alternative paints are acceptable and may be added to door leaves or frames for which unfinished test specimens were tested. Where the paint finish contributes to the fire resistance of the door (e.g. intumescent paints) then no change shall be permitted.
13.2.3.2.	**Decorative laminates**

13.2.3.2.	Decorative laminates and timber veneers up to 1,5 mm thickness may be added to the faces (but not the edges) of doors that satisfy the insulation criteria (normal or supplementary procedure).
	Decorative laminates and timber veneers applied to door leaves that do not satisfy the insulation criteria (normal or supplementary procedure) and/or those in excess of 1,5 mm thickness shall be tested as part of the test specimen. For all doorsets tested with decorative laminate faces, the only variations possible shall be within similar types and thicknesses of material (e.g. for colour, pattern, supplier).
13.2.4.	**Fixings**
13.2.4.	The number of fixings per unit length used to attach doorsets to supporting constructions may be increased, but shall not be decreased and the distance between fixings may be reduced but shall not be increased.
13.2.5.	**Building hardware**
13.2.5.	The number of hinges and dog bolts may be increased but shall not be decreased.
	Where a doorset has been tested with a door closing device fitted, but with the retention force released in accordance with 10.1.4, the doorset may be provided either with or without that closing device, i.e. where self closing characteristics are not required.
13.3.	**Permissible size variations**
13.3.1.	**General**
13.3.1.	Doorsets of sizes different from those of tested specimens are permitted within certain limitations, but the variations are dependent on product type and the length of time that the performance criteria are fulfilled.
	The increase and decrease of dimensions permitted by the field of direct application are applicable to the overall size and to each door leaf, each side panel and each over panel independently.
	In accordance with 13.2.2.3, the dimensions (width and height) of any glass pane cannot be increased.

6. Limitations

This classification document does not constitute a type-approval or certification of the product.

This classification is unlimited in its validity, insofar as the product and the field of application do not change.

Validity is voided when fundamental test or evaluation criteria change.

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Information about multi-signature, electronically signed documents is posted here.