

The Formwork Experts.

Expendable tie rod 20.0 with Anchoring cone 20.0

Art. n° 581437000

Classification report

Fire resistance

14040910-A,Rev3-en





Institut für Brandschutztechnik
und Sicherheitsforschung

CLASSIFICATION REPORT

Report on classification of the fire resistance of form-tie points pursuant to EN 13501-2:2016

Produktname: **DOKA form tie points EI 180**

Classification report No.: 14040910-A,Rev3-en

Datum: 25.08.2021

This document replaces CR 14040910-A,Rev2-en, dated 12.11.2018

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NOTIFICATION NUMBER:

1322

This Classification Report consists of **4** pages and 31 pages design catalog and may not be reproduced in any form, in whole or in part



1. Introduction

This fire-resistance Classification Report defines the classification that can be assigned to DOKA form-tie points EI 180 in accordance with the procedures stipulated in EN 13501, Part 2.

2. Details of the classified products

2.1. General remarks

The form-tie points detailed in the „design variants“ were placed in concrete walls of various thickness (ranging from 140, 200, 300 to 350 mm) as well as in a concrete wall with a thickness of 140 and 150 mm and successfully tested with regard to their integrity (barrier function) and thermal insulation in accordance with EN 1363-1, for a test-duration of 181 minutes.

2.2. Description

In support of this classification to Section 3 of EN 13501 Part 2, the form-tie points concerned are described in the following test report.

3. Test reports on field of direct application, and test results to substantiate the classification

3.1. Test report

The following test reports are submitted in support of the classification:

Name of testing body ¹	Name of client	Reference No of report	Test method and date	Object of testing
IBS Linz	Doka GmbH	10121411	1363-1:1999	„Spannstellen EI 180“
IBS Linz	Doka GmbH	14040910-1	1363-1:2012	„Spannstellen EI 180“

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

3.2. Test results

Report No. Test procedures Test date Duration of testing	Parameters	Results
10121411 EN 1363-1 7 th June 2011 181 minutes	Integrity Cotton pad Gap gauge Sustained flaming	Not ignited Not possible Not present
	Thermal insulation I _{medium} I _{max}	No failure No failure
14040910-1 EN 1363-1 13 th May 2015 181 minutes	Integrity Cotton pad Gap gauge Sustained flaming	Not ignited Not possible Not present
	Thermal insulation I _{medium} I _{max}	No failure No failure

4. Classification and field of application

4.1. Reference regarding classification

This classification was effected in accordance with EN 13501-2:2016, Section 7.5.2

4.2. Classification

The form-tie points concerned have been classified in conformity with EN 13501-2:2016 and with the following combinations of performance and classes, as applicable.

E	---	E 20	E 30	---	E 60	E 90	E 120	---
EI	EI 15	EI 20	EI 30	EI 45	EI 60	EI 90	EI 120	EI 180

No other classifications are permitted.



The load-bearing capacity (R) is verified mathematically as specified by EN 1992-1-2 (issue date: 1st Sept. 2010); this code stipulates the design and construction of reinforced-concrete and pre-stressed concrete superstructures for the unusual event of fire exposure.

Classification 'EI 180' was achieved for all the tested form-tie points, except for the following:

Description	Page	Classification
Concrete cone 52mm	page 15	E 120 and EI 60
Framax Xlife plus plug 24mm	page 19	EI 120
Framax Xlife plus plug 38mm	page 20	EI 120

4.3. Field of direct application

The component has the following field of direct application with reference to EN 1364, Part 2 and EN 13501 Part 2:

- increasing the wall thickness (minimum thickness: 14 cm)
- increasing the thickness of building elements
- reducing the spacing of fixing devices
- unrestricted widening of wall construction
- increasing the height as provided in EN 1992-1-2

No other modifications are permitted.

5. Limitations

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

**IBS-INSTITUT FÜR BRANDSCHUTZTECHNIK UND
SICHERHEITSFORSCHUNG GESELLSCHAFT M.B.H.
Akkreditierte Prüf-, Inspektions- und Zertifizierungsstelle**

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Official in charge

Ing. Josef STOCKINGER
Monitoring

Information on documents with multiple electronic signatures can be found [here](#)!

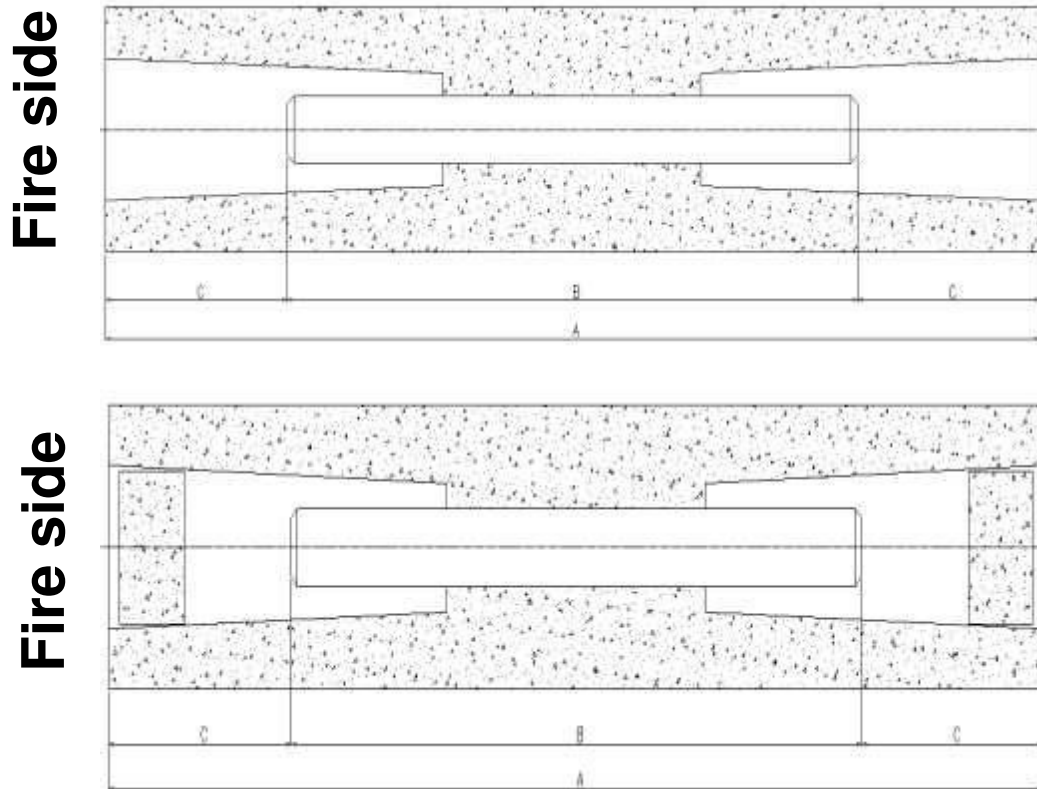
Change note:

Rev1 und Rev2:

Rev3:

Addition of the three Dokaset variants in the Design catalog
M-Bed moulding mortar replace by expansive mortar
Variantes 9, 10 und 11 of Framax Xlife Plus added

3.1, Expendable tie rod 20.0 with Anchoring cone 20.0



A Minimum wall thickness 35cm

B depends on wall thickness

Fixed dimension:

C 8.2cm

Used material:

Article name	Article number
Anchoring cone 20.0 (removed after pouring)	58 1437 000
Tie rod 20.0mm galvanised m (cut-to-length)	58 1410 000
Fibre concrete plug 45mm	58 1438 000
REPOXAL two component adhesive	58 1993 000