Institut für Brandschutztechnik und Sicherheitsforschung

CLASSIFICATION REPORT

according to EN 13501-2:2016

Product name: **Containex Fire Protection systems**
Type: „REI 30, REI 60, REI 90“

Classification report no.: 11032410-A,Rev5-en
This document replaces the CR no 11032410-A,Rev4-en from 02.04.2015.
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APPLICANT:	**CONTAINEX** **Container-Handelsgesellschaft m.b.H.** IZ NOE-Sued, Straße 14 AT-2355 Wiener Neudorf
ISSUED BY:	IBS - Institut für Brandschutztechnik und Sicherheitsforschung GmbH Petzoldstraße 45, 4020 Linz
NOTIFICATION NUMBER:	1322

This classification report consists of **6** pages and must not be used or reproduced in parts only.

1. Introduction

This classification report for fire resistance defines the classification assigned to element „Containex Fire Protection systems“ in accordance with the proceduresgiven in EN 13501-2:2016.

2. Details of classified product

2.1. General

The element „Containex Fire Protection systems“ consists of loadbearing roofs, non-loadbearing walls as well as of cladded structural steel elements and is a construction of all these parts together.

2.2. Description

The element „Containex Fire Protection systems“ is fully described below or is fully described in the test report(s) and/or in the extended application report(s) in support of classification listed in in 3.1.

3. Test reports/Reports for the extended area of application and test results to demonstrate the classification

3.1. Test reports/Reports for the extended area of application

Details of test reports or extended application reports are shown below:

Name of test institute[1]	Name of applicant	Reference no. of report	Test method and date/regulations for the extended area of application and date	Tested material
CSI S.p.A.	Piva Group S.p.A.	CSI1379FR	EN 1364-1:1999	Partition walls made of self-supporting insulated metal boards, type: „System MNR FIBRA EI 90“ Appraisal date: 12.02.2008
ISTITUTO GIORDANO	Piva Group S.p.A.	305999/ 7690/CPD	EN 1364-1:1999	Partition walls made of self-supporting insulated metal boards, type: „System MNR FIBRA EI 45“ Appraisal date: 04.01.2013

TECNALIA	Piva Group S.p.A.	13_03618-1-a	EN 1364-1:1999	Partition walls made of self-supporting insulated metal boards, type: „System PIR PRT EI 30“ Appraisal date: 04-05.11.2013
MA39	CONTAINEX Container-Handelsgesell-schaft m.b.H.	MA39-VFA 2007-1640.01	EN 1364-2:1999	Non-loadbearing cabin roof with metal case, insulated with rock wool or PU foam Appraisal date: 22.10.2007
IBS	Saint-Gobain Rigips Austria GmbH	10042711	EN 13501-2	Rigips Fire protection ceilings
BTC	British Gypsum Limited	15121FA	ENV 13381-4:2002	A Fire resistance appraisal covering a series of tests carried out on the british gypsum firecase system, conducted in accordance with DD ENV 13381-4:2002 Appraisal date: 19th February 2007
BTC	British Gypsum Limited	15122FA	ENV 13381-4:2002	A Fire resistance appraisal covering a series of tests carried out on the british gypsum firecase system, conducted in accordance with DD ENV 13381-4:2002 (only for four-sided columns) Appraisal date: 30th April 2007
IBS	CONTAINEX Container-Handels-gesellschaft m.b.H.	11071909A-rev4	EN 13501-2	CONTAINEX roof construction REI30, REI60 & REI90
MA39	DOMOFERM International GmbH	MA39-VFA 2007-1199.01	EN 1634-1	UT 691 in rock wool panel wall
MA39	DOMOFERM International GmbH	MA39-VFA 2016-0071.01	EN 1634-1	Evaluation UT431
MA39	DOMOFERM International GmbH	MA39-VFA 2009-0662.01	EN 1634-1	Evaluation UT631
IBS	DOMOFERM International GmbH	315031616-1	EN 1634-1	Draft test report
IBS	DOMOFERM International GmbH	1331600774	EN 1634-1	Draft test report

[1] Name/Adresse sowie Notifizierungsnummer/Status der Prüfstelle in alphabetischer Reihenfolge:

- CSI SPA, Via Lombardia, 20, I-20021 - Bollate (MI), NB 0497
- FUNDACION TECNALIA RESEARCH & INNOVATION, c/ Geldo. Edificio 700, 48160 Derio (Vizcaya), Spain, NB 1292
- IBS: IBS - Institut für Brandschutztechnik und Sicherheitsforschung GmbH, Petzoldstraße 45, A-4020 Linz; NB 1322
- ISTITUTO GIORDANO S.P.A., Via Rossini 2, I-47814 Bellaria (RN), NB 0407
- Magistratsabteilung 39 - Prüf-, Überwachungs- und Zertifizierungsstelle der Stadt Wien, Rinnböckstrasse 15, A-1110 Wien, (NB 1139)

3.2. Test results

Report no. Test method Test date Test duration	Parameter	Results
CSI1379FR EN 1364-1 12.02.2008 138 minutes	Applied load supporting construction	- -
	Integrity Cotton-wool gap gauge sustained flames	 Not ignited Not possible 138 minutes
	Thermal Insulation I_{medium} I_{max}	 No failure 117 minutes
305999/7690/CPD EN 1364-1 04.01.2013 46 minutes	Applied load Supporting construction	- -
	Integrity Cotton-wool Gap gauge Sustained flames	 Not ignited Not possible 46 minutes
	Thermal Insulation $I_{mediium}$ I_{max}	 No failure No failure
13_03618-1-a EN 1364-1 04-05.11.2013 38 minutes	Applied load Supporting construction	- -
	Integrity Cotton-wool Gap gauge Sustained flames	 37 minutes Not possible Not occurred
	Thermal Insulation I_{medium} I_{max}	 No failure No failure
MA39-VFA **2007-1640.01** EN 1364-1 22.10.2007 62 minutes	Applied load Supporting construction	- -
	Integrity Cotton-wool ball Gap gauge Sustained flames	 Not ignited Not possible Not occurred
	Thermal Insulation I_{medium} I_{max}	 No failure 62 minutes
MA39-VFA **2007-1199.01** EN 1634-1 10.09.2007 90 minutes	Applied load Supporting construction	- -
	Integrity Cotton-wool ball Gap gauge Sustained flames	 Not ignited 68 minutes Not occurred
	Thermal Insulation I_{medium}	 No failure

Report no. Test method Test date Test duration	Parameter	Results
	I_{max}	76 minutes
	Mechanical action Self-closing	

4. Classification and field of application

4.1. Reference for classification

This classification has been carried out in accordance with clause 7 of EN 13501-2:2016.

4.2. Classification

The element „Containex Fire Protection systems“ is classified according to the example oft he following combinations of performance parameters and classes as appropriate.

	Fire protection system REI90					
	Fire protection system REI60					
	Fire protection system REI30					
E	E 15	E 20	E 30	E 45	E 60	E 90
EI	EI 15	EI 20	EI 30	EI 45	EI 60	EI 90
R[1]EI	REI 15	REI 20	REI 30	REI 45	REI 60	REI 90

4.3. Field of application

This classification is valid for the following end use application:
see appendix

[1] The loadbearing capacity of the CONTAINEX Fire protection systems is not affected by the sufficiently protected construction method. Therefore, this is to be seen as achieved as soon as the room-enclosure as well as the thermal insulation are achieved.

5. Limitations

This classification document does not represent type approval or certification of the product

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

Ing. Martin SCHWINGENSCHLÖGL
Engineer

Ing. Josef STOCKINGER
Authorised signatory

Note of change:
Update of appendices

Institut für Brandschutztechnik und Sicherheitsforschung

National appendix for Austria
Evaluation of use

General
This national appendix for Austria must only be used in conjunction with the main part of this „classification report“.
Above listed test institutes have carried out the documented fire resistance tests according to the applicable EN standards for “Containex Fire Protection systems” upon request of CONTAINEX Container Handelsgesellschaft m.b.H., Wiener Neudorf or via their suppliers.
Each test result was documented in the listed test reports and the test results have been evaluated taking into consideration the defined performance criteria according to EN 1364-1 and EN 1364-2 as well as considering the direct field of application and the test experience of the test institute and acceptable construction deviations have been defined. These are documented by IBS Linz in the currently valid table of contents for the “design catalogue”.

A. Reference of classification and evaluation

This national appendix was carried out acc to EN 13501-2:2007+A1:2009, part 7, **and** in combination with the test experience of the test institute it defines the acceptable variations of the construction elements “CONTAINEX Fire protection systems” for the use in Austria.

B. National classification for Austria

The parameters and combinations of options listed in this appendix (design catalogue) can be seen as equivalent to the listed classification in this report (part 4.2) with regards to its usability in Austria.

The use of „Containex Fire Protection systems“ is possible in other countries in principle, however, IBS cannot issue an official certification. A country specific certification and confirmation of usability has to be carried out by each country specific authority.

C. National field of application

see attached design catalogue

A. Restrictions of national appendix

This appendix does not constitute a type approval or certification of the product.

Furthermore, this appendix does not constitute a general proof of usability nor a proof of suitability.

This present national appendix is valid either from date of issue **until 17.10.2021** or until a harmonised product standard for this type of product is issued.

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TABLE OF CONTENTS BEILAGEN

The following table of contents only shows the system relevant information and data sheets of the catalogue complete with their current versions and date of issue of current versions; it does not, however, show general information sheets from the manufacturer (licensor). The system relevant information and data sheets of the attached catalogue are only valid if notice of change and date of change or issue corresponds with the table of contents released (stamped) by IBS.
The category **„Remarks/Restrictions“** contains for specific chapters and/or data sheets **restrictions in view of size and design for Austria** which have to be considered by the respective planner, manufacturer or user!

The appendices of the catalogue are not stamped by IBS separately. Changes, additions or deletions of individual positions of this design catalogue do not automatically require a reissue of the basic document “National appendix for Austria for the classification report”

3.33	Supplement kit L REI 30_RW 60		1 page	17.10.2016
3.34	Supplement kit L REI 60_RW 110		1 page	17.10.2016
3.35	Supplement kit L REI 90_RW 110		1 page	17.10.2016
3.36	Supplement kit U REI 30_PIR 110		1 page	17.10.2016
3.37	Supplement kit U REI 30_RW 60		1 page	17.10.2016
3.38	Supplement kit U REI 60_RW 110		1 page	17.10.2016
3.39	Supplement kit U REI 90_RW 110		1 page	17.10.2016
3.40	Window link R 30_PIR 110		1 page	17.10.2016
3.41	Window link R 30_RW 60		1 page	17.10.2016
3.42	Window link R 60_RW 110		1 page	17.10.2016
3.43	Window link R 90_RW 110		1 page	17.10.2016
3.44	Partition wall, corner cover trim, PIR 110_EI 30		1 page	17.10.2016
3.45	Partition wall, corner cover trim, RW 60_EI 30		1 page	17.10.2016
3.46	Partition wall, corner cover trim, RW 110_EI 60		1 page	17.10.2016
3.47	Partition wall, corner cover trim, RW 110_EI 90		1 page	17.10.2016
3.48	Partition wall, top cover trim, PIR 110_EI 30		1 page	17.10.2016
3.49	Partition wall, top cover trim, RW 60_EI 30		1 page	17.10.2016
3.50	Partition wall, top cover trim, RW 110_EI 60		1 page	17.10.2016
3.51	Partition wall,corner top cover trim, RW 110_EI 90		1 page	17.10.2016
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3.57	Top cover trim REI 60_RW 110_RBI		1 page	17.10.2016
3.58	Top cover trim REI 90_RW 110_F20		1 page	17.10.2016
3.59	Panel opening without fittings R 30_PIR 110		1 page	17.10.2016
3.60	Panel opening without fittings R 30_RW 60		1 page	17.10.2016
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3.65	Wall tunnel REI 60_RW 110		1 page	17.10.2016
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3.67	Support pillar REI 30		1 page	17.10.2016
3.68	Support pillar REI 60		1 page	17.10.2016
3.69	Support pillar REI 90		1 page	17.10.2016
3.70	Door link with EI 30 door - 235 mm_PIR 110_RW 60		1 page	17.10.2016
3.71	Door link with EI 30 door - 285 mm_PIR 110		1 page	17.10.2016
3.72	Door link with EI 30 Türe - 285 mm_RW 110		1 page	17.10.2016
3.73	Door link for openings without door frames R 30_PIR 110		1 page	17.10.2016
3.74	Door link for openings without door frames R 30_RW 60		1 page	17.10.2016
3.75	Door link for openings without door frames R 60_RW 110		1 page	17.10.2016
3.76	Door link for openings without door frames R 90_RW 110		1 page	17.10.2016
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3.79	Door link R 60_RW 110		1 page	17.10.2016
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3.82	Cladding staircase opening REI 30_RW 60		1 page	17.10.2016
3.83	Double panel wall for supporting construction R60_110 PIR_F20		1 page	17.10.2016
3.84	Double panel wall for supporting construction R60_110 PIR_RBI		1 page	17.10.2016
4.0	**Assembly instructions**			
4.1	Assembly instruction for cabin type Transpack		16 pages	10/2005
4.2	Linking of cabins to form a modular building		33 pages	04/2010
5.0	**Technical description**			
5.1	Technical description of portable, sanitary and link cabins		27 pages	06/2015

Validity note
The validity of this table of contents corresponds with the main document „National appendix for Austria for the classification report" of CONTAINEX.

Design options for „CONTAINEX Fire protection systems, type: REI30, REI60, REI90“, 5th edition from 02.08.2017

The fire protection system consists of individual room modules (cabins and cladding material).

The room modules consist of a robust frame construction (floor frame, roof frame and corner posts) and interchangeable wall elements and can be arranged sideways, end to end as well as stacked on top of each other. By leaving out wall elements and installing partition walls various room sizes can be created. The erection and assembly instructions of CONTAINEX have to be followed in doing so.

To achieve a fire resistance for the entire fire protection system fire resistant components as well as construction elements (walls, roofs) are used in the loadbearing frame construction. When linking individual room modules (cabins) the exposed edges of the frame construction have to be cladded

- with Glasroc F Ridurit boards of company. RIGIPS, according to fire resistance classification of components of company CONTAINEX or
- with alternative building materials/boards acc to EN 15283-1, with the relevant proof acc to EN 13381-4 and according to fire resistance classification of components of company CONTAINEX.

When using Glasroc F Ridurit boards or alternative materials the relevant assembly and fitting instructions of the manufacturer in its latest version have to be adhered to and applied.
Schematic design drawings potentially supplied by CONTAINEX have to be seen as drawings in principle and do not constitute a complete and binding cladding description. These drawings can be found in the table of contents under point 3.

System description

Fire protection system REI30:

- **Floor section according to CONTAINEX specification**
- **Wall EI30**
  - 60mm rock wool panel
  - 110mm PIR panel
  - 110mm rock wool panel
- **Partition wall EI30**
  - 60mm rock wool panel
  - 110mm PIR panel
  - 110mm rock wool panel
- **Roof REI30**
- **Cladding material R30**
- **Door $EI_2$30-C5**

Fire protection system REI60:

- **Floor section according to CONTAINEX specification**
- **Wall EI60**
  - 110mm rock wool panel
- **Trennwand EI60**
  - 110mm rock wool panel
- **Roof REI60**
- **Cladding material R60**
- **Door $EI_2$30-C5**

Fire protection system REI90:

- **Floor section according to CONTAINEX specification**
- **Wall EI90**
  - 110mm rock wool panel
- **Partition wall EI90**
  - 110mm rock wool panel
- **Roof REI90**
- **Cladding material R90**
- **Door $EI_2$30-C5**

1. Frame construction

The frame construction provides the structural stability of the system and additionally houses the various elements of the wall as well as floor and roof sections. Exact design options according to the technical description of CONTAINEX.

2. Floor

The space within the floor frame is filled with thermal insulation. Floor boards coated with floor covers are fitted onto the top side of the construction. The possible thermal insulation, floor board and cover options as well as all construction details are described in the technical description of CONTAINEX and also shown as drawings in attached table of contents under point 2.

3. Roof

Along the lines of the floor section the spaces within the frame are filled with thermal insulation (rock wool, mineral wool or PU foam[2]). On the bottom side of the construction a 2- or 3-layer plasterboard cladding coated with a metal sheet is fitted as ceiling.

Exact construction details according to test report no. MA39-VFA 2007-1640.01 as well as classification report IBS 11071909A-rev4.

4. Wall element

The wall element is constructed as sandwich element with rock wool insulation acc to test report no. 305999/7690/CPD (for EI45) and CSI1379FR (for EI90) or as sandwich element with PIR insulation acc to test report no. 13_03618-1-a (for EI30).

5. Partition wall element

The partition wall element is constructed as sandwich element with rock wool insulation acc to test report no. 305999/7690/CPD (for EI45) and CSI1379FR (for EI90) or as sandwich element with PIR insulation acc to test report no. 13_03618-1-a (for EI30).

[2] Roof construction REI90 only permissible in combination with additional minimum 40 mm rock wool layer towards the fire side!

6. Cladding material

When linking individual room modules (cabins) the exposed edges of the frame construction have to be cladded

- with Glasroc F Ridurit boards of company. RIGIPS, according to fire resistance classification of components of company CONTAINEX or
- with alternative building materials/boards acc to EN 15283-1, with the relevant proof acc to EN 13381-4 and according to fire resistance classification of components of company CONTAINEX.

When using Glasroc F Ridurit boards or alternative materials the relevant assembly and fitting instructions of the manufacturer in its latest version have to be adhered to and applied.
The schematic design of these claddings can be found in the table of contents under point 3.

7. Door

Doors with the fire resistance rating „$EI_2$30-C5“ are tested acc to EN 1634 and can be allocated in accordance with method acc EN 13501, part 2 and fitted into wall or partition wall elements (test report no. CSI1379FR as well as 13_03618-1-a). The wall opening is cladded with plasterboard and the back of the door frame is filled with rock wool. The schematic design of this can be found in the drawings in the table of contents under point 3.