

CLASSIFICATION OF FIRE RESISTANCE ACCORDING TO EN 13501-2: 2016

Classification Number	2020-Efectis-R001460
Sponsor	Metaalwarenfabriek Metacon B.V. Zuidbaan 450 2841 MD MOORDRECHT THE NETHERLANDS
Product name	RGT
Prepared by	Efectis Nederland BV
Notified body Number	1234
Authors	S. Lutz P.W.M. Kortekaas
Project number	ENL-19-001308
Date of issue	August 2020
Number of pages	8

TABLE OF CONTENTS

1.	Introduction	3
1.1	Revision information	3
1.2	Accreditation	3
1.3	Normative references	3
2.	Details of classified product	3
2.1	General	3
2.2	Description	4
2.3	Test specimen	4
3.	Test reports/extended application reports and test results in support of the classification	4
3.1	Test reports	4
3.2	Extended application reports	4
3.3	Test results	4
3.3.1	2019-Efectis-R002228	4
3.3.2	2020-Efectis-R000120	5
4.	Classification and field of application	5
4.1	Reference of classification	5
4.2	Classification	5
4.3	Field of application	5
4.3.1	Field of direct application	5
4.3.2	Extended application	5
4.3.3	Field of application based on direct application and extended application	6
5.	Limitations	7
6.	Drawings	8

1. INTRODUCTION

This classification report defines the resistance to fire classification assigned to a fabric curtain type RGT in accordance with the procedures given in EN 13501-2:2016.

1.1 REVISION INFORMATION

This is the first issue of the test report.

1.2 ACCREDITATION

Due to Dutch regulations, classification based on the Exap report 2020-Efectis-R000874[Rev.1] cannot be part of the accredited section of this document. Based on common practise agreed by the group of Notified Bodies EXAP reports and following classification will be judged based on 2 criteria:

- 1) Is the EXAP performed by a laboratory that performed at least one of the supported tests
- 2) Is the laboratory who performed the EXAP accredited for the respective test standard.

For this report Efectis Netherlands fulfills both requirements mentioned above.

1.3 NORMATIVE REFERENCES

European standard	Part
EN 1634-1:2014 + A1:2018	Fire resistance and smoke control tests for door and shutter assemblies, openable windows, and elements of building hardware - Part 1: Fire resistance test for door and shutter assemblies and openable windows
EN 15269-11:2018+ C1:2019	Extended application of test results for fire resistance and/or smoke control for door, shutter, and openable window assemblies, including their elements of building hardware - Part 11: Fire resistance for operable fabric curtains
EN 13501-2:2016	Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services
EN 16034:2014	Pedestrian door sets, industrial, commercial, garage doors and openable windows – Product standard, performance characteristics – Fire resisting and/or smoke control characteristics

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, RGT, is defined as a fabric curtain assembly.

The fabric curtain assembly, type RGT, has been tested mounted on a standard flexible supporting construction, tested with the galvanized steel barrel casing on the wall orientated to the exposed and non-exposed side.

2.2 DESCRIPTION

The element, RGT, is fully described in the test reports in support of classification listed in 3.1.

2.3 TEST SPECIMEN

The test specimen was a fabric curtain assembly type Firescreen **RGT**.

3. TEST REPORTS/EXTENDED APPLICATION REPORTS AND TEST RESULTS IN SUPPORT OF THE CLASSIFICATION

3.1 TEST REPORTS

Name of laboratory	Name of sponsor	Report ref. no	Test standard
Efectis Nederland	Metaalwarenfabriek Metacon B.V.	2019-Efectis-R002228	EN 1634-1:2014+ A1:2018
Efectis Nederland	Metaalwarenfabriek Metacon B.V.	2020-Efectis-R000120	EN 1634-1:2014+ A1:2018

3.2 EXTENDED APPLICATION REPORTS

Name of laboratory	Name of sponsor	Report ref. no	Exap standard
Efectis Nederland BV	Metaalwarenfabriek Metacon B.V.	2020-Efectis-R000874[Rev.1]	EN 15269-11:2018+ C1:2019

3.3 TEST RESULTS

3.3.1 2019-Efectis-R002228

Time of reaching a criterion measured from the start of the test in accordance with EN 1634-1+A1		
Criterion	Time [min]	Results
Integrity (E)		
-Cotton pad	138*	Not determined
-Gap gauge Ø 6 mm	136	Failure
-Gap gauge Ø 25 mm	138*	Not determined
-Sustained flaming > 10 seconds	138*	No Failure
Heat Radiation (W)	138*	No failure, max. 13.5 kW/m ² at 133 min.
* The heating was terminated after 138 minutes after consulting the client.		

3.3.2 2020-Efectis-R000120

Time of reaching a criterion measured from the start of the test in accordance with EN 1634-1+A1		
Criterion	Time [min]	Results
Integrity (E)		
-Cotton pad	92*	Not determined
-Gap gauge Ø 6 mm	92	Not determined
-Gap gauge Ø 25 mm	85	Failure
-Sustained flaming > 10 seconds	80*	Failure
Heat Radiation (W)	92*	No failure, max. 13.2 kW/m ² at 91 min.
The heating was terminated after 92 minutes after consulting the client.		

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

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

4.2 CLASSIFICATION

The element, RGT is classified according to combinations of performance parameters and classes as described in Clause 6.7 of EN 13501-2:2016.

FIRE RESISTANCE CLASSIFICATION: E60-C0* and EW60-C0*

* C0 including ability to release in accordance with EN 16034:2014, see reports mentioned in § 3.1.

4.3 FIELD OF APPLICATION

4.3.1 Field of direct application

This classification is valid for the following end use applications: the field of direct application in accordance with EN 1634-1:2014+A1:2018 has been described in Efectis NL test reports mentioned in § 3.1.

4.3.2 Extended application

The stress in the various loadbearing components including fixings of the tested fabric curtain assembly has been calculated using the methodology as stated in the EXAP standard EN 15269-11:2018+C1:2019. Based on this approach it is concluded that the fabric curtain assembly type **RGT**, as tested and described in Efectis Nederland test and Exap report mentioned in § 3.1 and § 3.2, will have a classification of:

FIRE RESISTANCE CLASSIFICATION:

dimensions 8000 x 6000 mm (w x h)
mounted on the exposed or non-exposed side
of a standard flexible supporting construction

E60-C0, and EW60-C0

FIRE RESISTANCE CLASSIFICATION:

dimensions 6000 x 8000 mm (w x h)
mounted on the exposed or non-exposed side
of a standard flexible supporting construction

E60-C0, and EW60-C0


4.3.3 Field of application based on direct application and extended application

In addition to the field of application mentioned in chapter 4.3 of this report the following extended field of application based on the Exap report is applicable:

- The dimensions of the fabric curtain type RGT may be enlarged to maximum 8000 x 6000 mm (w x h) or 6000 x 8000 mm (w x h) under the following conditions:
- If the length of the bottom bar is larger than the tested length, the expansion allowance has to be increased according to the coefficient of thermal expansion of the used material. If the width of the curtain is less than the tested width, the expansion allowance shall be the same as tested. For example: a curtain tested with a bottom bar of 3000 mm and 5 mm clearance between bottom bar and guides (both sides) needs 10 mm expansion allowance when scaled up to a length of 4000 mm.
- If size increase (width, height, area) of the curtain assembly is to be considered for the extended application, allowances for thermal expansion shall be provided as the expansion of the metal components may cause excessive forces on the supporting elements, which, could result in their failure under fire conditions. The mechanisms/devices designed to allow thermal expansion for the metal components of the curtain assembly shall be clearly described. These devices shall be included in the test samples. The thermal expansion characteristics of the materials shall be considered for dimensioning the allowances in the test samples and in the barriers with extended dimensions. The physical properties given in EN 1993-1-2 may be used for these calculations.
- The need for expansion allowances shall be considered in the tube, side guides, bottom bar, tube casing, shaft, etc.

5. LIMITATIONS

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



S. Lutz

Project leader resistant to fire and smoke control



P.W.M. Kortekaas

Senior project leader resistant to fire

6. DRAWINGS

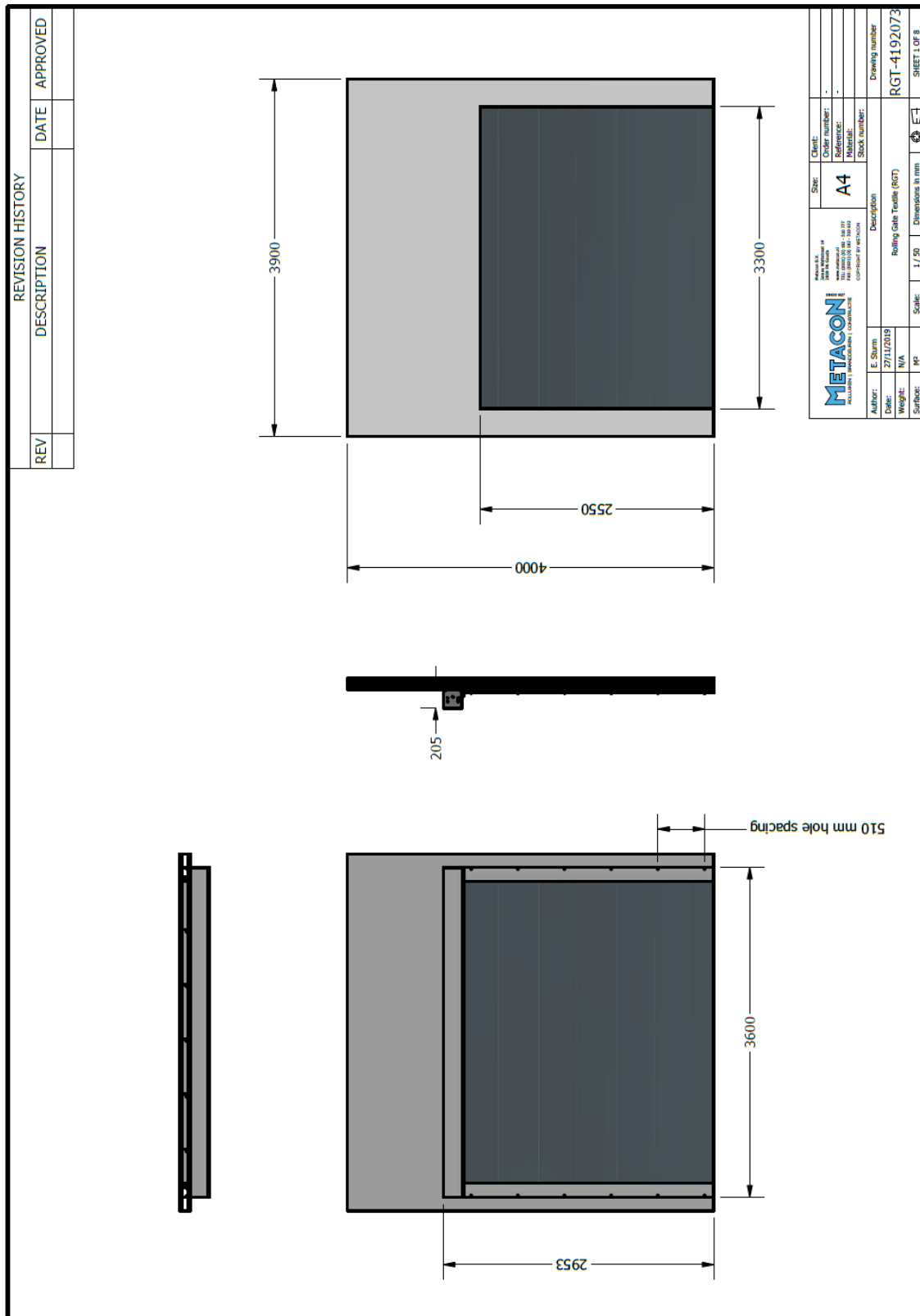


Figure 1 Overview of full-scale test specimen