



Institut IGH d.d.

Laboratorij za građevinsku fiziku  
Building Physics Laboratory

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**RN 62570888**

## 1 Introduction

This classification report defines the classification of products: GT 40.40/FR, in compliance with procedures listed in the standard HRN EN 13501-1:2019.

### FIRE CLASSIFICATION USING THE CLASSIFICATION STANDARD HRN EN 13501-1:2019

**Ordered by:** BIEMME srl  
Via Tevere, 26  
61030 Lucrezia di Cartoceto (PU) Italia

**Manufacturer:** unknown

**Carried out by:** INSTITUT IGH d.d.  
Zavod za materijale i konstrukcije  
Laboratorij IGH  
Laboratorij za građevinsku fiziku  
Janka Rakuše 1, HR-10000 Zagreb

**Registration number of the  
authorized person in the  
Republic of Croatia:** 1/05

**Product name:** GT 40.40/FR

**Classification report number:** 72570/038/20-020/21

**Number of copies:** 3

**Date of issue:** 2021-02-15

This report fully replaces the classification report number 72570/038/20-125/21 of 26/11/2020.  
This classification report consists of 3 pages and can be used or reproduced only in full.



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**Report Number: 72570/038/20-020/21**

## GENERAL PART

### 2 Details on the classified product

#### 2.1 In general

GT 40.40/FR

#### 2.2 Product description

GT 40.40/FR is a thermoset composite fabric which consists of glass fabric from E-glass fibres JM direct roving 300 tex and fireproof aperture.

Composition and percentage of the share of an individual component of the product are described in the test report number 72570/038/20-019/21.

The fabric is woven in two directions, plain weave under 90°.

Nominal flat mass of the GT 40.40/FR is 140 g/m<sup>2</sup> (± 5 %). For the purpose of testing the thermal action of the single burning item on the GT 40.40/FR, test samples were made from three pieces of the mesh, for the main (longer) sample wing 850 mm x 1500 mm and 250 mm x 1500 mm, and for the auxiliary (shorter) sample wing 500 mm x 1500 mm (width x length). The vertical joint of two pieces of the mesh on the longer (main) sample wing is made by overlapping some 100 mm at a distance of 200 mm from the corner of the sample. Test samples of the GT 40.40/FR are fixed with steel staples to the surface made from fibre-cement panels of the class A1 (HRN EN 13501-1) fire rating, with no air space between them.

### 3 Test reports and results of tests that comprise the classification basis

#### 3.1 Test reports

Name of the laboratory	Name of the client	Test report	Test method
INSTITUT IGH d.d. Zavod za materijale i konstrukcije Laboratorij IGH Laboratorij za građevinsku fiziku Janka Rakuše 1 HR-10000 Zagreb	BIEMME srl Via Tevere, 26 61030 Lucrezia di Cartoceto (PU) Italia	Number 72570/038/20- 019/21 of 2021-02-15	HRN EN ISO 11925- 2:2020, HRN EN 13823:2015

#### 3.2 Test results

Test method	Criterion for class B-s2, d0	Test number	Measured mean value	Compliance with the criterion
HRN EN ISO 11925-2:2020 (exposure 30 s) GT 40.40/FR:				
- flame impingement on the surface:	F, 150 mm in < 60 s	6	< 150 mm	Yes
- flame impingement on the edge:	F, 150 mm in < 60 s	6	< 150 mm	Yes
-flaming droplets/particles:	No ignition of the filter paper	6+6	-	Yes



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Report Number: 72570/038/20-020/21

Test method	Criterion for class B-s2, d0	Number of tests	Measured mean value	Compliance with the criterion
HRN EN ISO 11925-2:2020 (exposure 30 s) GT 40.40/FR:				
	<i>FIGRA</i> <sub>0, 2m</sub> , 120 W / s	3	0,0 W / s	Yes
	<i>THR</i> <sub>600</sub> , 7,5 MJ	3	0,4 MJ	Yes
	<i>LFS</i> < edge of the test sample	3	< edge of the test sample	Yes
- smoke production:	<i>SMOGRA</i> 180 m <sup>2</sup> /s <sup>2</sup>	3	589 m <sup>2</sup> /s <sup>2</sup>	No
	TSP600s 200 m <sup>2</sup>	3	49,5 m <sup>2</sup>	Yes
- flaming droplets/particles:	No flaming droplets/particles: (up to 600. s)	3	-	Yes

#### 4. Classification and areas of application

##### 4.1. Classification basis

The classification is carried out in compliance with items 11.6, 11.9 and 11.10 of the standard  
**HRN EN 13501-1:2019.**

##### 4.2 Classification

With regard to its reaction to fire, the product GT40.40/FR, unknown producer, has the classification: **B**.

Additional classification with regard to smoke production: **s3**.

Additional classification with regard to flaming droplets/particles: **d0**.

Fire behaviour	Smoke production	Flaming droplets/particles
<b>B</b>	<b>s 3</b>	<b>d 0</b>

**Fire reaction classification: B-s3,d0**

##### 4.3 Application area

This classification applies to the GT 40.40/FR, fixed to a non-combustible surface with metal staples, with no air space, as described in this document and Test Report number 72570/038/20-019/21.

#### 5 Restrictions

Time restriction: no restrictions, provided that the dated issues of the standards this classification refers to are valid.

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

Classification carried out by  
Tomislav Vuić, univ. spec. aedif.

Approved by  
Mladen Bezjak, PhD, MSc in mechanical  
engineering