

## Fire Test Certificate – Specimen

**Fabric:** Muslin 4.2  
**Type:** B1

**J&C Joel**   
the inspiration behind the performance

### General site supervision certificate

**Number:** P-BWU03-I-16.5.417

(Translation of the German original, not verified by MPA - Universität Stuttgart (Otto-Graf-Institut))

**Subject matter:** Flame retardant agent "RUCO-FLAM NGF" for finishing fabrics made of cellulosic fibres including jute as flame retardant building material (building material class DIN 4102-B1) according to Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2, serial no. 2.10.2

**Date of issue:** 17 November 2017

**Date of expiry:** 30 November 2022

Due to this general site supervision certificate, the above mentioned subject matter is applicable according to the state building regulation.

This general site supervision certificate contains 7 pages and 0 annexes. Jurisdiction and place of performance is Stuttgart.

## I. General provisions

1. The general site supervision certificate does not replace legal approvals, consents and certificates required for implementing building projects.
2. The general site supervision certificate is granted without prejudice to the rights of third parties, especially private proprietary rights.
3. Manufacturers and distributors of the building product have to provide copies of the general site supervision certificate to the user of the building product without prejudice to further regulations under “Special provisions” and have to point out that the general site supervision certificate has to be available at the point of use. All parts involved shall receive copies of the general site supervision certificate upon request.
4. The general site supervision certificate must always be copied entirely. The publication of extracts requires the approval of the MPA - Universität Stuttgart (Otto-Graf-Institut). Texts and drawings of promotions must not contradict the general site supervision certificate. Translations of the general site supervision certificate must contain the remark “Translation of the German original, not verified by MPA - Universität Stuttgart (Otto-Graf-Institut).”
5. The general site supervision certificate is revocable. The provisions of the general site supervision certificate can be amended at a later date, especially if new technical findings require it.
6. The building product mentioned in the present general site supervision certificate require a proof of conformity (certificate of conformity) and a labelling with the conformity mark according to the regulation on marks of conformity of the federal states.

## II. Special provisions

### 1. Subject matter and field of application

#### 1.1 Subject matter

Flame retardant agent “RUCO-FLAM NGF” for finishing fabrics made of cellulosic fibres including jute as flame retardant building material (building material class DIN 4102-B1) according to Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2, serial no. 2.10.2

#### 1.2 Field of application

- 1.2.1 The flame retardant may be used for finishing of fabrics made of cellulosic fibres in all colours - jute included - if this fabric is used as a building product (e.g. stage curtains), which must be securely installed.
- 1.2.2 The weight per unit area of the finished fabric made of cellulosic fibres - jute excluded - must be 88 g/m<sup>2</sup> to 557 g/m<sup>2</sup>, with a flame retardant dry coverage of approximately 200 g/kg.  
The weight per unit area of the finished fabric made of jute must be 330 g/m<sup>2</sup> to 361 g/m<sup>2</sup>, with a flame retardant dry coverage of approximately 200 g/kg.
- 1.2.3 The fabrics finished with the flame retardant must only be used in closed spaces without moisture penetration. The flame retardant is not resistant to the penetration of water as well as washing and dry cleaning. After a care treatment by washing or dry cleaning, the flame retardant finish must be renewed.
- 1.2.4 The fabrics finished with the flame retardant must not be exposed to weather.
- 1.2.5 The fabrics finished with the flame retardant maintain their flame retardant properties only without additional paintings, coatings or similar.
- 1.2.6 This general site provision certificate is only valid, if requirements according to the Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2, serial no. 2.10.2 have to be fulfilled.
- 1.2.7 The prove of further site provision requirements as e.g. stability, resistance to fire, heat or sound insulation or health and environmental protection are no subject matters of the present general site provision certificate. Therefore, further/other certificates (general site provision approval) might be necessary.

## Fire Test Certificate – Specimen

**Fabric:** Muslin 4.2  
**Type:** B1

### 2. Requirements of building product

#### 2.1 Properties and composition

2.1.1 The flame retardant is a colourless, clear and water-dilutable liquid based on phosphate.

The flame retardant has to be produced in such a way that the fabrics made of cellulosic fibres including jute finished comply with the requirements on flame retardant building materials (building material class B1) according to DIN 4102-1: 1998-05.

2.1.2 The composition must correspond to the data stored with the MPA - Universität Stuttgart (Otto-Graf-Institut).

2.1.3 Test method

The building product must comply with the requirements on flame retardant building materials (building material class 81) according to DIN 4102-1:1998-05.

2.1.4 Basis for granting the general site supervision certificate

| Name of test centre                               | No. of certificates/test reports/reports date | test method/rules         |
|---------------------------------------------------|-----------------------------------------------|---------------------------|
| MPA - Universität Stuttgart<br>Otto-Graf-Institut | certificate<br>903 3583 000 of<br>17/11/2017  | DIN 4102-1<br>DIN 4102-16 |

2.1.5 Requirements of the execution of building product

2.1.5.1 The flame retardant may be used for finishing of fabrics made of cellulosic fibres - jute included - if this fabric is used as a building product (e.g. stage curtains), which must be securely installed.

2.1.5.2 The weight per unit area of the finished fabric made of cellulosic fibres - jute excluded - must be 88 g/m<sup>2</sup> to 557 g/m<sup>2</sup>, with a flame retardant dry coverage of approximately 200 g/kg.  
The weight per unit area of the finished fabric made of jute must be 330 g/m<sup>2</sup> to 361 g/m<sup>2</sup>, with a flame retardant dry coverage of approximately 200 g/kg.

2.1.5.3 The fabrics finished with the flame retardant must only be used in closed spaces without moisture penetration. The flame retardant is not resistant to the penetration of water as well as washing and dry

cleaning. After a care treatment by washing or dry cleaning, the flame retardant finish must be renewed.

- 2.1.5.4 The fabrics finished with the flame retardant have only flame retardant properties, if the distance to other flat building materials is at least 40 mm.
- 2.1.5.5 The finished fabrics must not be treated with paintings, coatings or similar.
- 2.1.5.6 The suitability of the building material for the application as heat insulation and for sound insulation is not proved.
- 2.1.5.7 During the production of the building product, the requirements of paragraph II 2.1 have to be fulfilled.

### 2.2 Conformity mark

The manufacturer has to label each building product with the conformity mark (Ü-symbol) according to the regulations on conformity marks of the federal states. It must be only labelled, if it complies with the requirements according to paragraphs 3.1 to 3.3.

The Ü-symbol must be fixed on the building product or on the packaging (applies also for instruction leaflets) or, if not possible, on the delivery note.

The following information must be fixed to the building material or to the packaging:

- product name
- conformity mark (Ü-symbol) with
- name of manufacturer
- certificate number: P-BWU03-I-16.5.417
- graphical symbol or name of certification body
- manufacturing plant
- building material class flame retardant (DIN 4102-B1) according to application area

### 3. Certificate of conformity

#### 3.1 General

Conformity of the building product with the regulations of the present general site supervision certificate must be confirmed for each manufacturing plant by means of a certificate of conformity based on in-company production control and regular external supervision including initial test of the building material according to the regulations of the present general site supervision certificate.

For granting the certificate of conformity and for carrying out external supervision including the product tests to be realised, the manufacturer must involve a recognised certification and supervision authorities.

#### 3.2 In-company production control

An in-company production control<sup>1)</sup> has to be established and carried out assuring by means of the manufacturer's continuous supervision of production that the building product complies with the regulations of the general site supervision certificate.

For maintaining and implementing the in-company production control, the "regulations on the certificate of conformity"<sup>2)</sup> are pertinent.

The results of the in-company production control must be recorded and evaluated. The records must at least include the following information:

- name of the building product
- type of control
- manufacturing date and date of production control of building product
- test results and comparison with requirements
- signature of person responsible for in-company production control

The retention period for records is at least five years and must be presented to the supreme building supervisory board responsible for the external supervision. In case of an unsatisfactory control result, the manufacturer must immediately take the necessary steps to correct the defects and to eliminate all products concerned. The in-company production control has to guarantee that building products not complying with the requirements are not labelled with the Ü-symbol. After correcting the defect, the respective control has to be repeated.

1) In this case, the general requirements on the Building Rules List A, section 1, paragraph 4, edition 2015/2 (DIBt communications 06 October 2015) must be considered.

2) "Directive on certificate of conformity of flame retardant building materials (building material class DIN 4102-B1) after the general site supervision approval" (Communications DIBT 2/1997)

### 3.3 External supervision

In every manufacturing plant, the in-company production control must be regularly verified at least once a year by an external supervision authority.

The relevant version of the “Certificate of conformity regulations”<sup>2)</sup> is standard for the supervision.

The external supervision must include an initial inspection of the building product. During the external supervision, samples for spot tests must be taken. The recognised supervision body is responsible for sampling and tests.

The retention period for the results of certification and external supervision is at least five years. They must be presented upon request to the responsible supreme building supervisory board by the certification body or external supervision.

### 3.4 Legal basis

This general site supervision certificate is issued on the basis of article 17 of the “Bayerische Bauordnung” (BayBO = Bavarian Building Regulations), version 14 August 2007, last amendment on 17/11/2014 in combination with the Building Rules List A, part 2, edition 2015/2 with changes 2016/1 and notification of change 2016/2. The corresponding legal basis is contained in the state building regulations of the other federal states.

### 3.5 Advice on legal remedies

An objection against this general site supervision certificate may be filed within one month upon receipt. The objection has to be filed either in writing or for record at Universität Stuttgart, Keplerstraße 7, 70174 Stuttgart or PO box 106037, 70049 Stuttgart.

2) “Directives on the certificate of conformity of flame retardant building materials (building material class DIN 4102-81) according to the general site supervision approval” (Communications DIBT 2/ 1997)