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Hinweis: Von der MPA – Universität Stuttgart (Otto-Graf-Institut) nicht geprüfte Übersetzung der deutschen Originalfassung.

General Building Regulation Test Certificate

Test Certificate Number:

P-BWU03-I-16.5.271

Object:

Fire protection agent 'FLORIMP K VERDE' for the finishing of cellulose woven fibre fabrics – except for jute woven fibre fabrics and polyester woven fibre fabrics as a not-easily combustible construction material (building materials class DIN² 4102-B1)

Applicant:

AISCO Chemieprodukte GmbH
Basler Straße 115
79115, Freiburg im Breisgau, Germany

Date of Issue:

08th of January, 2016

Period of Validity until:

30th of November, 2020

On the basis of this general building regulation test certificate, the above-mentioned object is able to be utilised within the meaning of the State Building Code (of Baden-Württemberg, Germany).

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Dieses allgemeine bauaufsichtliche Prüfzeugnis umfasst 7 Seiten und 0 Anlagen.

Dieses allgemeine bauaufsichtliche Prüfzeugnis ersetzt das allgemeine bauaufsichtliche Prüfzeugnis P-BWU03-I-16.5.271 vom 11. November 2010. Für den Gegenstand ist erstmals am 16. Dezember 2005 ein bauaufsichtlicher Verwendbarkeitsnachweis ausgestellt worden. Gerichtsstand und Erfüllungsort ist Stuttgart.

Nach DIN EN ISO/IEC 17025 durch die DAP Deutsches Akkreditierungssystem Prüfwesen GmbH akkreditiertes Prüflaboratorium. Die Akkreditierung gilt für die in den Urkunden aufgeführten Prüfverfahren (DAR-Reg.-Nr.: DAP-PL-2907.99). Zusätzliche Akkreditierungen nach DIN EN ISO/IEC 17025 durch DKD / PTB, KBA, ZLS und Zertifizierung nach DIN EN ISO 9001:2000 durch TÜV. Vom DIBt anerkannte PÜZ-Stelle, bei EU notifizierte Stelle 0672 und 1080.
MPA • Universität Stuttgart • Pfaffenwaldring 4 • 70569 Stuttgart

<http://www.mpa.uni-stuttgart.de>

¹MPA – Materialprüfungsanstalt – Materials Testing Institute (at the University of Stuttgart).

²DIN – Deutsches Institut für Normung – German Institute for Standardisation, the German national standards body

I. General Provisions

1. The general building regulation test certificate does not substitute for the mandatory statutory authorisations, approvals and certifications required for the carrying out of planned construction and building works.
2. The general building regulation test certificate is issued without prejudice to the rights of third parties, in particular, without prejudice to private property rights.
3. The manufacturer and distributor of the construction product shall, irrespective of further provisions and regulations in the 'Special Provisions', provide the user of the construction product with copies of the general building regulation test certificate. Upon request, copies of the general building regulation test certificate are to be provided to all involved parties.
4. The general building regulation test certificate may only be duplicated in full. Publication or release of extracts only requires the approval of the MPA¹ (Materials Testing Institute) at the University of Stuttgart, Otto Graf Institute. Texts and diagrams/ drawings/figures of advertising brochures may not contradict nor be inconsistent with the general building regulation test certificate. Translations of the general building regulation test certificate must contain the following note: 'Translation from the German original version not certified by the MPA¹ (Materials Testing Institute) – University of Stuttgart, Otto Graf Institute ('Von der MPA – Universität Stuttgart [Otto-Graf-Institut] nicht geprüfte Übersetzung der deutschen Originalfassung').
5. The general building regulation test certificate is issued on the basis that it may be revoked at any time. The provisions of the general building regulation test certificate may be subsequently supplemented or amended, in particular, when new technical findings or expertise requires this.
6. The construction product specified in this general building regulation test certificate requires verification of its conformity (certificate of conformity) with and verification of its labelling with the conformity mark (Ü-mark [Ü-Zeichen³]) in accordance with the regulations of the German federal states concerning the conformity mark.

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¹MPA – Materialprüfungsanstalt – Materials Testing Institute (at the University of Stuttgart).

³Ü-Zeichen – Übereinstimmungszeichen – conformity mark.

1. Object and Scope of Application

1.1 Object

Fire protection agent 'FLORIMP K VERDE' for the finishing of cellulose woven fibre fabrics – except for jute woven fibre fabrics and polyester woven fibre fabrics
as a not-easily combustible construction material (building materials class DIN² 4102-B1)
in accordance with (German) Construction Products List A⁴, Part 2, Edition 2015/2, item 2.10.2

1.2 Scope of Application

1.2.1 The fire protection agent may be used for the finishing of cellulose woven fibre fabrics, with the exception of jute and polyester woven fibre fabrics, insofar as these woven fibre fabrics are used as a construction product (e.g. stage or drop curtains), which must be installed in a fixed position.

The dry thickness of the coating of fire protection agent on cellulose woven fibre fabrics must be approximately 160 g/kg and on polyester woven fibre fabrics approximately 40 g/kg. The coating weight per unit area of the finished polyester woven fibre fabric may not exceed 250 g/m².

The woven fibre fabrics finished with the fire protection agent may only be used in enclosed (indoor) spaces without being subject to the effects of humidity. The fire protection agent is not resistant against the effects of water or against the effects of chemical cleaning.

The woven fibre fabrics finished with the fire protection agent are only not easily combustible when they retain a distance of more than 40 mm to other construction materials with (large) surface areas.

The woven fibre fabrics finished with the fire protection agent may not be exposed to the elements outdoors.

The woven fibre fabrics finished with the fire protection agent are only not easily combustible without additionally applied coatings, coverings or similar.

The suitability of the woven fibre fabrics finished with fire protection agent for use as heat insulation or for sound insulation has not been demonstrated or established.

1.2.2 This general building regulation test certificate shall be valid only insofar as specifications in accordance with the (German) Construction Products List⁴ A, Part 2, Edition 2015/2, item 2.10.2 are to be fulfilled.

1.2.3 The verification or confirmation of further building regulation specifications, such as those of structural integrity, fire resistance, heat and sound insulation, or health and environmental protection are not the purpose or object of this general building regulation test certificate.

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For the purposes of these specifications, where required, other or further confirmations (standard building regulation authorisation) may be necessary.

²DIN – Deutsches Institut für Normung – German Institute for Standardisation, the German national standards body

⁴Bauregelliste A from the DIBt – Deutsches Institut für Bautechnik – German Institute for Civil Engineering and Construction Technology

2. Requirements on the Construction Product

2.1 Properties and Composition

- 2.1.1 The fire protection agent must be an aqueous solution of a phosphorous nitrogen compound.
- 2.1.2 The fire protection agent is to be manufactured in such a way that cellulose woven fibre fabrics finished with the agent, with the exception of jute and polyester woven fibre fabrics, fulfil the specifications for construction materials that are not easily combustible (building materials class B1) in accordance with DIN² 4102-1: 1998-05.
- 2.1.3 The composition must be consistent with the specifications deposited at the MPA¹ (Materials Testing Institute) at the University of Stuttgart, Otto Graf Institute.

2.2 Test Procedure

The construction product must fulfil the specifications for construction materials that are not easily combustible (building materials class B1) in accordance with DIN² 4102-1: 1998-05.

2.3 Provisions for Finishing

- 2.3.1 The fire protection agent may be used for the finishing of cellulose woven fibre fabrics, with the exception of jute and polyester woven fibre fabrics, insofar as these woven fibre fabrics are used as construction materials (e.g. stage or drop curtains), which must be installed in a fixed position.
- 2.3.2 The dry thickness of the coating of fire protection agent on cellulose woven fibre fabrics must be approximately 160 g/kg and on polyester woven fibre fabrics approximately 40 g/kg. The coating weight per unit area of the finished polyester woven fibre fabric may not exceed 250 g/m².
- 2.3.3 The woven fibre fabrics finished with the fire protection agent may only be used in enclosed (indoor) spaces without being subject to the effects of humidity. The fire protection agent is not resistant against the effects of water or against the effects of chemical cleaning.
- 2.3.4 The woven fibre fabrics finished with the fire protection agent are only not easily combustible when they retain a distance of more than 40 mm to other construction materials with (large) surface areas.
- 2.3.5 The woven fibre fabrics finished with the fire protection agent are only not easily combustible without additionally applied coatings, coverings or similar.
- 2.3.6 The suitability of the woven fibre fabrics finished with fire protection agent for use as heat insulation or for sound insulation has not been demonstrated or established.
- 2.3.7 The provisions of section II, 2.1 are to be adhered to in the manufacture of the construction product.

3. Certificate of Conformance

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3.1 General Provisions

The confirmation of the conformity of the construction product with the provisions of this general building regulation test certificate must be effected for each and every manufacturing plant by means of a certificate of conformity on the basis of an in-house factory production control and an external quality control inspection carried out at regular intervals, including an initial inspection of the construction product in accordance with the following provisions.

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The manufacturer of the construction product shall engage an accredited certification authority as well as an accredited inspection agency for the purposes of the issue of a certificate of conformity, and for the carrying out of external quality control inspection(s) including for product testing to be effected within the framework of such inspections.

3.2 In-House Factory Production Control

An in-house factory production control⁵ is to be set up and carried out in every manufacturing plant. This production control shall guarantee the consistent and uniform manufacture and composition of the construction product in accordance with section 2.1 (above). The 'Directives for a Certificate of Conformity'⁶ are authoritative for the carrying out of the in-house factory production control.

3.3 External Quality Control Inspection

In every manufacturing plant, the in-house factory production control is to be inspected at regular intervals by an external quality control inspection, at a minimum of once a year.

The 'Directives for a Certificate of Conformity'⁶ are authoritative for the carrying out of the inspection.

Within the framework of the external quality control inspection, an initial inspection of the construction product is to be carried out. During the on-going external quality control inspection, samples are to be taken for the purposes of sample testing. It is incumbent upon the accredited inspection agency to arrange for the taking of samples and the sample testing respectively.

The results of the certification and external quality control inspection procedures are to be retained for a minimum of five years. Upon request, they are to be submitted to the highest building regulation authority by the certification authority or the inspection agency.

3.4 Conformity Mark

The construction product must be labelled by the manufacturer with the conformity mark (Ü-mark [Ü-Zeichen³]) in accordance with the regulations of the German federal states concerning the conformity mark. Labelling with the conformity mark may only take place when the requirements for this as per sections 3.1 to 3.3 have been fulfilled.

The Ü-mark is to be affixed to the construction product or to its packaging (the enclosed label / leaflet is also considered as packaging), or shall this not be possible, the Ü-mark shall be affixed to the delivery note.

The following information is to be affixed to the construction product itself or to its packaging:

- product name *<Seal of the Materials Testing Institute
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- conformity mark (Ü-mark [Ü-Zeichen³]) with:
 - name of the manufacturer
 - certificate number: P-BWU03-I-16.5.271
 - picture trademark / graphic symbol or name of the certification authority
- manufacturing plant

³Ü-Zeichen – Übereinstimmungszeichen – conformity mark.

⁵In this connection, the general provisions of the Construction Products List A (*Bauregelliste*), Section 1, Paragraph 4, Edition 2008/1 (DIBt Information Special Edition 26/2008) are to be adhered to. (For DIBt, see footnote 4 above).

⁶'Directives for a Certificate of Conformity for not easily combustible construction materials (building materials class DIN 4102-B1) in accordance with standard building regulation authorisation' (DIBt Information 2/1997). (For DIBt, see footnote 4 above).

- building materials class not easily combustible (DIN² 4102-B1) in accordance with scope of application
- the finishing is not resistant to the effects of water or chemical cleaning

4. Legal Basis

This general building regulation test certificate is issued on the basis of §§ 19) of the State Building Code for Baden-Württemberg (LBO - *Landesbauordnung* BW) as amended on the 5th of March, 2010 (Law Gazette [LBO - *Gesetzblatt*],) last amended by the law dated the 25th of January, 2012 (Law Gazette[LBO. - *Gesetzblatt*],) in connection with the Construction Products List A⁴, Part 2, Edition 2015/2. Corresponding legal bases are contained in the State Building Codes of the remaining German Federal States.

5. Instruction on the Right to Appeal

Objection (appeal) against the general building regulation test certificate is admissible. Objection shall be lodged in writing or by declaration, within a period of one month after receipt of the notification, at the MPA¹ (Materials Testing Institute) at the University of Stuttgart, Otto Graf Institute, at address Pfaffenwaldring 4, 70569 Stuttgart, Germany. We would like to point out that the period of time given for lodging an objection shall only be observed if such objection is received within this period of time.

Department of Fire Safety
Unit - Reaction to Fire of Building Materials

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Clerk / Administrator

Director of the Testing Institute

<Signature>

Dipl.-Ing. (FH) Gerhard Müller

<Signature>

Dr. rer. nat. Stefan Lehner,
Academic Director

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⁴Bauregelliste A from the DIBt – *Deutsches Institut für Bautechnik* – German Institute for Civil Engineering and Construction Technology