



Mfpa Leipzig GmbH

Testing, inspection and certification body for
building materials, building products and building systems

Division III - Structural Fire Protection

Dipl.-Ing. Sebastian Hauswaldt

Team 3.1 - Fire behaviour of Building Products

Dipl.-Ing. (FH) R. Pusch

Phone +49 (0) 341-6582-255

r.pusch@mfpa-leipzig.de

General appraisal certificate No. P-SAC02/III-885

from 02 May 2018

1st copy

Subject matter: Rigid polyurethane foam used as assembly foam
"B1 Foam"

corresponding to serial no. C 3.4, appendix to paragraph I of VwV TB [administrative regulation
on the introduction of technical building regulations] dated 15 December 2017:
Building materials with requirements regarding their reaction to fire only
- which are hardly inflammable (class DIN 4102-B1)*, except flooring

Applicant: Novatech International N.V.
Industrielaan 5B
2250 Olen
Belgium

Date of issue: 02 May 2018

Valid until: 23 February 2023

Person in charge: Dipl.-Ing. (FH) Rüdiger Pusch



This document consists of 6 pages.

This general appraisal certificate replaces the general appraisal certificate P-SAC02/III-885 by Mfpa Leipzig from 21/11/2017.

This is a translation of the German general appraisal certificate No. P-SAC02/III-885 dated 02/05/18. In case of doubt the German version shall apply.

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DAKKS
Deutsche
Akkreditierungsstelle
D-PL-11021-01-00

Testing laboratory accredited by DAKKS GmbH in accordance with DIN EN ISO/IEC 17025. The accreditation only applies to the testing methods listed in the certificate (marked with * in this document). The certificate can be viewed at www.mfpa-leipzig.de.

Approved test centre according to the Landesbauordnung [state building code] (SAC 02) and notified testing laboratory, inspection body and certification body (PÜZ-Stelle) according to the Construction Products Regulation (NB 0800).

Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH (Mfpa Leipzig GmbH)

Registered office: Hans-Weigel-Str. 2b – 04319 Leipzig/Germany
Managing Director: Dr.-Ing. habil. Jörg Schmidt
Company Register: District Court Leipzig HRB 17719
VAT ID No.: DE 813200649
Phone: +49 (0) 341-6582-0
Fax: +49 (0) 341-6582-135

A General provisions

- (1) The general appraisal certificate proves the applicability of the building product as defined by the state building codes.
- (2) The general appraisal certificate does not replace the statutory permits, approvals and certificates prescribed for building projects.
- (3) The general appraisal certificate is issued without prejudice to third-party rights, in particular private property rights.
- (4) The manufacturer and distributor of the building product must provide the user of the building product with copies of the general appraisal certificate, without prejudice to any further regulations in the "Special provisions" and point out that the general appraisal certificate must be present at the place of use. The authorities involved must be provided with copies of the general appraisal certificate on request.
- (5) The general appraisal certificate may only be copied in its entirety. Any publication in extracts requires the consent of the testing authority Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen mbH. Texts and drawings in advertising brochures may not contradict the general appraisal certificate. Translations of the general appraisal certificate must bear the note: "Translation of the original German version not verified by the Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH".
- (6) The general appraisal certificate may be cancelled after issue. The provisions of the general appraisal certificate can be subsequently supplemented and amended, in particular if this is required due to new technical findings.



B Special provisions

1 Subject matter and scope of the general appraisal certificate

1.1 Subject matter

The general appraisal certificate applies to the production and use of the blue one-component rigid polyurethane foam in non-refillable pressure cans which is used as an assembly foam for foaming using a foam gun and is designated as "B1 Foam" (subsequently referred to as assembly foam) as a hardly inflammable building material (building material class DIN 4102-B1) in accordance with the standard DIN 4102-1:1998-05.

The building product does not produce flaming droplets/particles as defined by the standard DIN 4102-1.

1.2 Scope

1.2.1. The general appraisal certificate applies to the use of the assembly foam as an in-situ foam for assembly, and filling.

1.2.2. The assembly foam is to be used between non-flammable building panels or solid mineral substrates with a bulk density $\geq 650 \text{ kg/m}^3$ and a thickness $\geq 11 \text{ mm}$ or a bulk density $\geq 1500 \text{ kg/m}^3$ and a thickness $\geq 6 \text{ mm}$ according to DIN 4102-16:2015-09 in a maximum thickness (filled joint depth) of 20 mm and a maximum joint width of 30 mm.

The reaction to fire is not verified if the surface of the assembly foam is also painted, laminated or otherwise covered.

1.2.3. The assembly foam must not be exposed to outdoor weather conditions after filling and curing.

1.2.4. This general appraisal certificate only applies as far as requirements according to the administrative regulation by the Saxon State Ministry of the Interior on the introduction of technical building regulations (VwV TB), dated 15 December 2017, paragraph C3.4 and the appendix to paragraph I number 1 of VwV TB, are to be met.

If there are any requirements to the stability, fall protection, thermal and noise protection of the building product or if there are any advanced requirements regarding fire protection, additional verification is required.

1.2.5. Health and environmental protection are not part of the present general appraisal certificate; if there are any requirements in this regard, additional tests are necessary.

2 Provisions for the building product

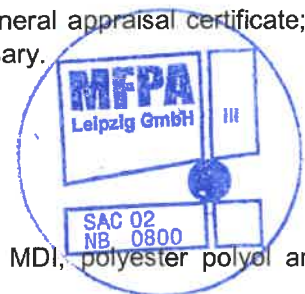
2.1 Properties and composition

2.1.1. The one-component rigid polyurethane foam has to be made of MDI, polyester polyol and propellant.

2.1.2. After foaming and curing, the assembly foam has to have a bulk density of approx. 13.5 kg/m^3 . The colour of the assembly foam has to be blue.

2.1.3. The assembly foam which is used to fill joints has to meet the requirements for hardly inflammable building materials (building material class DIN 4102-B1) as per the standard DIN 4102-1:1998-05.

2.1.4. The chemical composition of the assembly foam has to comply with the specifications filed with MFP Leipzig GmbH. Changes are subject to the approval of MFP Leipzig.



2.1.5. Basic test documents

The description of the performed tests and the presentation of the results can be found in the test reports:

ÜB 3.1/14-385-1 by MFPA Leipzig dated 17/02/2015,

ÜB 3.1/15-357-1 by MFPA Leipzig dated 17/03/2016,

ÜB 3.1/16-365-1 by MFPA Leipzig dated 09/02/2017,

ÜB 3.1/16-434-1 by MFPA Leipzig dated 01/03/2017.

2.2 Production and marking

2.2.1 Production

For the production of the building product, the provisions of section 2.1 must be observed.

2.2.2 Marking

The building product must be marked by the manufacturer with the mark of conformity (Ü mark) in accordance with the ordinances of the German federal states which regulate marks of conformity. Marking may only be carried out if the requirements of section 2.3 are met.

The Ü mark has to be on the building product or its packaging (which includes package inserts) or, if this is not possible, on the delivery note.

The building product, packaging, package insert or delivery note must bear the following information:

- Product name
- Mark of conformity (Ü mark) including
 - o Manufacturer's name
 - o Number of the general appraisal certificate: P-SAC 02/III-885
 - o Logo or name of the certification body
- Manufacturing plant
- Reaction to fire: Building material class "hardly inflammable" (DIN 4102-B1) between non-flammable building panels or solid mineral substrates.



2.3 Certificate of conformity

2.3.1 General

The compliance of the building product with the provisions of the present general appraisal certificate has to be confirmed for each manufacturing plant by a certificate of conformity based on factory production control and regular third-party monitoring including an initial inspection of the building product according to the following provisions.

The manufacturer of the building product must commission a certification body and an inspection agency which are approved for this purpose with the issuance of the certificate of conformity and with third-party monitoring including the product tests which are to be performed.

2.3.2 Factory production control

In each manufacturing plant, a factory production control which ensures the uniform manufacture and composition of the building product according to section 2.1 is to be established and performed. Factory production control means the continuous monitoring of the production by the manufacturer to ensure that the produced building product complies with the provisions of the present general appraisal certificate.

For factory production control, the "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102-B1) nach allgemeiner bauaufsichtlicher Zulassung" [Guidelines for the certificate of conformity for flame-resistant building materials (building material class DIN 4102-B1) according to the general appraisal certificate]¹ as amended from time to time must be observed.

2.3.3 External monitoring

In each manufacturing plant, the factory production control is to be checked regularly, at least once a year, by third-party monitoring.

For the monitoring, the "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102-B1) nach allgemeiner bauaufsichtlicher Zulassung" [Guidelines for the certificate of conformity for flame-resistant building materials (building material class DIN 4102-B1) according to the general appraisal certificate] as amended from time to time must be observed.

As part of third-party monitoring, an initial inspection of the building product has to be performed. During third-party monitoring, samples for sample testing are to be taken. Sampling and tests are to be performed by the approved inspection agency.

The results of the certification and third-party monitoring are to be kept on file for at least five years. They have to be presented to the competent supreme building control authority by the certification body or the inspection body on request.



¹ The "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102-B1) nach allgemeiner bauaufsichtlicher Zulassung" were published in the "Mitteilungen des Deutschen Instituts für Bautechnik" [Communications by the German Institute for Building Technology] dated 1 April 1997.

3 Provisions for the execution

- 3.1. The provisions in sections 1.2 and 2.1 are to be observed.
- 3.2. The assembly foam is to be used between non-flammable building panels or solid mineral substrates with a bulk density $\geq 650 \text{ kg/m}^3$ and a thickness $\geq 11 \text{ mm}$ or a bulk density $\geq 1500 \text{ kg/m}^3$ and a thickness $\geq 6 \text{ mm}$ according to DIN 4102-16:2015-09 in a maximum thickness (filled joint depth) of 20 mm and a maximum joint width of 30 mm.
- 3.3. The reaction to fire is not verified if the assembly foam is also painted, laminated or otherwise covered.
- 3.4. The assembly foam must not be exposed to outdoor weather conditions after filling and curing.

4 Legal basis

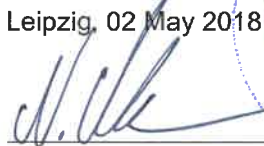
- 4.1. This general appraisal certificate is issued based on sec. 19 of the building code for the state of Saxony (SächsBO) as amended by the publication dated 11 May 2016, in the version from 27 October 2017, and based on the administrative regulation by the Saxon State Ministry of the Interior on the introduction of technical building regulations (VwV TB) "part C3, dated 15 December 2017, and the appendix to paragraph I number 1 of VwV TB.
- 4.2. Corresponding legal bases are contained in the state building codes of the remaining German federal states.

5 Legal remedies

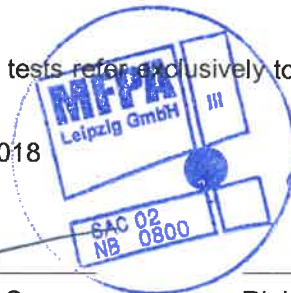
- 5.1. A protest can be lodged against this general appraisal certificate within one month of its receipt.
- 5.2. The protest must be lodged in writing or for record to the Managing Director of Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH, Hans-Weigel-Straße 2b, 04319 Leipzig, Germany.
- 5.3. The time at which the letter of protest is received by the Gesellschaft für Materialforschung und Prüfungsanstalt für das Bauwesen Leipzig mbH is decisive for the timeliness of the protest.

The results of the tests refer exclusively to the test items described herein and not to other items of the same variety.

Leipzig, 02 May 2018



Nick Neumann, M.Sc.
Head of Testing Laboratory



Dipl.-Ing. (FH) R. Pusch
Testing Engineer