Deutsches Institut für Bautechnik

DIBt

Zulassungsstelle für Bauprodukte und Bauarten

Bautechnisches Prüfamt

Eine vom Bund und den Ländern gemeinsam getragene Anstalt des öffentlichen Rechts

Member of EOTA and UEAtc

Allgemeine bauaufsichtliche Zulassung

(National Technical Approval)

Date: April 18, 2012

Our ref.: III 41-1.56.2-65/11

Approval number:

Z-56.28-3564

Valid until:

April 18, 2017

Applicant:

Akzo Nobel Wood Coatings GmbH
Geschäftsbereich Zweihorn
Düsseldorfer Straße 96-100
40721 Hilden

Object of approval:

Three-layer paint system "Wigranit " on MDF boards with fire behaviour B- s2, d0.

The above-mentioned object of approval is hereby provided with the National Technical Approval.
This National Technical Approval consists of six pages.

I GENERAL PROVISIONS

1 The National Technical Approval proves the usability and/or applicability of the object of approval for the purpose of the State Building Laws.

2 As far as the National Technical Approval should put demands on particular competence and experience of the persons entrusted with the manufacturing of construction products and building elements according state regulations equivalent to Art. 17 Par. 5 of the Model Building Regulation, it must be considered, that this competence and experience can also be proved by equivalent proofs of other member states of the European Union. This also applies to equivalent proofs provided under the Agreement on the European Economic Area (EEA) or other bilateral agreements.

3 The National Technical Approval does not replace the legally required approvals, consents and certificates necessary for the execution of building projects.

4 The National Technical Approval is granted irrespective of the rights of third parties, especially of private proprietary rights.

5 Irrespective of other regulations in the section "Special Provisions", manufacturers and sellers of the object of approval have to provide the user of the object of approval with copies of the National Technical Approval and have to point out that the National Technical Approval must be available at the place of application. Upon request, the authorities concerned must be provided with copies of the National Technical Approval .

6 The National Technical Approval may only be duplicated completely. Any publication in extracts requires the approval of the Deutsches Institut für Bautechnik. Texts and drawings in leaflets may not be inconsistent with the National Technical Approval. Translations of the General National Technical Approval must be marked with "Translation from the German original, not verified by the Deutsches Institut für Bautechnik".

7 The National Technical Approval is granted revocably. The provisions of the National Technical Approval may be completed or changed subsequently, especially if this should be required due to new technical findings.

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II SPECIAL PROVISIONS

1 Object of Approval and Range of Application

1.1 Object of Approval

The National Technical Approval applies to the manufacturing and application of the three-layer paint system "Wigranit" applied to one side of an MDF board (henceforth referred to as "coated MDF board") with the fire behaviour Class C-s1,d0 according to DIN EN 13501-1[1,2], but only on a MDF board with a gross density of ≥ 790 kg/m^3, a thickness of ≥ 19 mm and a fire behaviour of class B-s2,d0. (Class C-s1,d0 corresponds to the general technical designation "flame-resistant".)

1.2 Range of Application

1.2.1 The coated MDF board according to DIN EN 13986[3] and Par. 2.1 may be used for interior constructions of wall and ceiling finishes. It may also be applied as top layer of suspended ceilings according to the standard DIN EN 139 64[4] and must meet the requirements of that standard.

It may be mounted with metal fixtures on metal supporting structure elements. The distance to the same or other flat construction products must be ≥ 80 mm.

The joints between the coated MDF boards must be butt joined or closed by means of metal joint profiles.

1.2.2 Irrespective of this National Technical Approval, components and special components in which the coated MDF board is used require in proof of their standard of fire resistance separate regulations (depending on the component, e.g., a General Appraisal Certificate or a General Technical Approval). The provisions concerning the coated MDF board contained in these proofs must be taken into account.

1.2.3 When using the coated MDF board for components in load-bearing or stiffening function (e.g., as load-bearing or stiffening covering), the provisions of the Building Rules List B, Part 1, cons. No. 1.3.2.2 must be taken into account. In normal case, dimension is made in accordance with the standards DIN 1052[5] combined with DIN V 20000[6] or DIN V ENV 1995-1 -1[7] together with the national application document[8].

1	DIN EN 13501-1 :2010-01	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
2	Note: Please note that the classification in a construction product class according to DIN EN 13501-1 is a preliminary decision in default of a harmonized European decision. Future harmonized product specifications may define deviating test requirements, which may require re-testing.	
4	DIN EN 13964:2007-02 und A1 :2006	Suspended ceilings - Requirements and test methods
5	DIN 1052:2008-12	Design, calculation and dimensioning of timber structure - General rules and rules for buildings. Revision I:2010-05 must be taken into account.
6	DIN V 20000-1:2005-12	Application of construction products in structure - Part 1: Wood based panels
7	DIN V ENV 995-1-1:1994-06	Eurocode 5 - Design, calculation and dimensioning of timber structure; General rules and rules for buildings
8	National Application Document (NAD)	"Directive concerning the application of DIN V ENV 1995-1-i ", Edition February 1995

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1.2.4 This National Technical Approval does not govern the suitability of the coated MDF board for purposes, which are subject to requirements concerning heat or sound insulation.

1.2.5 Fire behaviour is not attested if the surface of the MDF board coated on one side is additionally coated with paints, laminations or similar.

1.2.6 After the evidence of the smoulder behaviour of the coated MDF board in the fire shaft according to DIN 4102-1[9], has been provided, it may be used as flame-resistant building material.

2. Building Product Requirements

2.1 Properties and Composition

2.1.1 The MDF board (untreated board) must meet the requirements of the DIN EN 13986 standard and must have a thickness of ≥ 19 mm, a gross density of at least 790 kg/m^3 and a fire behaviour of at least B-s2,d0. The untreated board may be coated with a three-layer paint system consisting of

- Wigranit Isolierfüller Two-Pack Insulating Filler WIG-IF wet film thickness:</= 250 g/m²
- Wigranit Novacolor WNC/Colour, wet film thickness:</= 130 g/m² and
- Crystallit Two-Pack Solvent-Based Varnish CL wet film thickness:</= 120 g/m²

on one side. When doing so, the individual constituent parts of the system in different mixing ratios are mixed with the Hardener S8888 (WIG-IF) and PUR 5085 (WNC and CL) according to the manufacturer's instructions.

2.1.2 When the MDF board coated on one side is used on the substrates mentioned in Section 1.2, it must meet the fire behaviour requirements of Class C-s1,d0 according to DIN EN 13501- 1, Par. 11.

2.1.3 The MDF board coated on one side will not smoulder. During the fire shaft test according to the DIN 4102-16 standard it has met the requirements on building materials of the building material class 'flame-resistant' (DIN 4102-B1) according to DIN 4102.1, Par. 6.1.2.2.a) and 6.1.2.2c).

2.1.4 The chemical composition of the individual materials must correspond with the data deposited with the Deutsches Institut für Bautechnik.

Modifications may only be made with the consent of the Deutsches Institut für Bautechnik.

2.2 Manufacture and Marking

2.2.1 Manufacture

During the manufacture of the building product, the requirements of Par. 2.1 must be met.

2.2.2 Marking

In addition to the CE marking according to the standards DIN EN 13986 and DIN EN 13964, the manufacturer has to mark the board, its packaging, the instruction leaflet of each packing unit or the delivery note with the mark of conformity in accordance with the regulations concerning conformity of the Federal States. Marking may only be made if the requirements according to Par. 2.3 have been met.
The following information has to be indicated on the board, the packaging, the instruction leaflet of each packing unit or the delivery note of the building product:
- Name of the product
- Mark of conformity with
- Name of the manufacturer
- Approval number: Z-56.28-3564

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[9] DIN 4102-1:1998-05 Fire behaviour of building materials and building components - Part 1: Building materials; concepts, requirements and tests

- Logo or name of the testing institute
- Manufacturing site
- Fire behaviour: Class C-s1,d0 according to DIN EN 13501 1 (corresponds with the technical designation "flame-resistant"), acc. to the application requirements
- The building product does not smoulder.
- Other requirements according to DIN EN 13986 and DIN EN 13964

2.3 Proof of Conformity

2.3.1 General

The proof of conformity of the building product with the regulations of this National Technical Approval has to be effected for each manufacturing site based on an in-plant manufacturing control and a regular external control including an initial test of the building product according to the following regulations.

For granting the certificate of conformity and the external control including the product test to be carried out in this connection, the manufacturer of the building products has to employ a certification body and a supervision body that is licensed according to cons. No. 23/3 of the "Verzeichnis der Prüf-, Überwachungs- und Zertifizierungsstellen nach den Landesbauordnungen" (Testing laboratories, inspection bodies and certification bodies recognized according to the Landesbauordnungen ('Building Regulations of the Land'), Part IIa[10].

The declaration that a certificate of conformity has been issued must be given by the manufacturer by marking the building products with the mark of conformity with reference to the designated use.

The certification body has to provide the Deutsches Institut für Bautechnik with a copy of the certificate of conformity issued by the certification body.

2.3.2 In-Plant Manufacturing Control

Each manufacturing site must provide and carry out an in-plant manufacturing control. An in-plant manufacturing control is the continuous control of production to be carried out by the manufacturer in order to ensure that the produced building products correspond with this National Technical Approval .

The execution of the in-plant manufacturing control is subject to the "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102 B1) nach allgemeiner bauaufsichtlicher Zulassung"[11] (Guidelines for proof of conformance of flame-resistant building materials (Building Material Class DIN 4102 B1) as per National Technical Approval) in the applicable version.
The results of the in-plant manufacturing control must be recorded and analyzed. The records must at least contain the following information:

- Designation of the building product and/or of the raw material and the components
- Type of control or test
- Date of manufacture and of the test of the building product and/or of the raw material and the components
- Results of controls and tests and, if applicable, comparison with the requirements
- Signature of the person responsible for the in-plant manufacturing control

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10 last published in the "Mitteilungen" of the Deutsches Institut für Bautechnik, Special edition No. 37 of May 20, 2009

11 last published in the "Mitteilungen" of the Deutsches Institut für Bautechnik, Edition No. 2 of April 1, 1997

The recordings must be kept for at least five years and must be presented to the supervision body employed for external control. Upon request, they must be presented to the Deutsches Institut für Bautechnik and the supreme building control authority concerned.

In case of an insufficient test result, the manufacturer has immediately to take measures required to remedy the deficiency. Building products, which do not meet the requirements, must be handled so that they cannot be confused with products meeting the requirements. After the deficiency has been remedied and if feasible and required in proof of the rectification of deficiencies, the test must be repeated immediately.

2.3.3 External Control

In each manufacturing site, the in-plant manufacturing control must be verified by an external control at regular intervals, at least once a year. The execution of the supervision is subject to the "Richtlinien zum Übereinstimmungsnachweis schwerentflammbarer Baustoffe (Baustoffklasse DIN 4102 B1) nach allgemeiner bauaufsichtlicher Zulassung" (Guidelines for proof of conformance of flame-resistant building materials (Building Material Class DIN 4102 B1) as per National Technical Approval) in the applicable version.

In addition, the smouldering resistance test in the fire shaft must be carried out every second year.

Within the framework of external control, an original inspection of the building product must be carried out, and it is also possible to take samples for sampling inspection. The authorized supervision body is responsible for sampling and inspections.

The results of the certification and of the external control must be kept for at least five years. Upon request, the certification authority or the supervision body has to submit the results to the Deutsches Institut für Bautechnik and to the supreme building control authority concerned.

3 Fire Behaviour

When the instructions according to Par. 1.2 and Par. 2 are met, the MDF board coated on one side with the paint system is a flame-resistant building material (fire behaviour Class C-s1,d0 according to DIN EN 13501-1). The building product does not smoulder.

4 Implementary Regulations

4.1 The provisions of Par. 1.2 must be met.

4.2 The MDF board with a thickness of ≥ 19 mm, a gross density of at least 790 kg/m^3 and a fire behaviour of at least B-s2,d0 may be coated with a three-layer paint system consisting of

- Wigranit Isolierfüller Two-Pack Insulating Filler WIG-IF with an application quantity of ≤ 250 g/m^2
- Wigranit Novacolor WNC/Colour with an application quantity of ≤ 130 g/m^2 and
- Crystallit Two-Pack Solvent-Based Varnish CL with an application quantity of ≤ 120 g/m^2

on one side. When doing so, the individual constituent parts of the system in different mixing ratios are mixed with the Hardener S 8888 and PUR 5085 according to the manufacturer's instructions.

Peter Proschek
Head of Division

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Certified: Signature