

**Materials Testing Institute
Stuttgart University**
PO Box 801140 * D-70511 Stuttgart

MPA STUTT GART
Materials Testing Institute - Stuttgart University
Testing, inspection and certification centre accredited by DIBt
Reg. No. BWU-03

Fire prevention Department - Behaviour of building materials in fire

General Appraisal Certificate for Construction Products

Appraisal Certificate No.: **P-BWU03-I-16.5.307**

Product: Clear, three-pack self sealing polyurethane lacquer "Duritan™
3K High-Solid" on fire resistant (DIN 4102-B1) particle boards - also
veneered -
as fire resistant building material (building material class DIN 4102-B1)
according to Building Regulation List A, Part 2, edition 2015/2 with
changes 2016/1 and change notice 2016/2, serial number 2.10.2

Client: Akzo Nobel Hilden GmbH
Düsseldorfer Strasse 96-100
40721 Hilden

Date of issue: March 28, 2018

Valid until: March 31, 2023

Based on this General Appraisal Certificate, the above-named product is approved for use under the terms of the State Building Regulations.

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This General Appraisal Certificate contains a total of 7 pages and 0 enclosures.
This General Appraisal Certificate replaces the General Appraisal Certificate P-BWU03-I-16.5.307 of August 28,
2013. The first time, a proof of usability was issued for this product was on March 3, 2008. Legal domicile and
place of fulfilment is Stuttgart.

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05/2017

**Materials Testing Institute
Stuttgart University**

Page 2 of the General Appraisal Certificate P-BWU03-I-16.5.307 dated March 28, 2018

I. General Provisions

1. The General Appraisal Certificate does not replace the legally required approvals, consents and certificates necessary for the execution of building projects.
2. The General Appraisal Certificate is granted irrespective of the rights of third parties, especially of private proprietary rights.
3. 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.
4. The General Appraisal Certificate may only be duplicated completely. Any publication in extracts requires the approval of the MPA - Stuttgart University (Otto-Graf-Institute). Texts and drawings in leaflets may not be inconsistent with the General Appraisal Certificate. Translations of the General Appraisal Certificate must be marked with "Translation from the German Original, not verified by the MPA - Stuttgart University (Otto-Graf-Institute)".
5. The General Appraisal Certificate is granted revocably. The provisions of the General Appraisal Certificate may be completed or changed subsequently, especially if this should be required due to new technical findings.
6. The building product specified in this General Appraisal Certificate needs the proof of conformity and a marking with the mark of conformity in accordance with the regulations concerning conformity of the Federal States.

(Seal)

**Materials Testing Institute
Stuttgart University**

Page 3 of the General Appraisal Certificate P-BWU03-I-16.5.307 dated March 28, 2018

II. Special Provisions

1. Product and Range of Application

1.1 Product

Clear three-pack self sealing polyurethane lacquer system "Duritan™ 3K High-Solid", consisting of the three-pack sealer "Duritan™ 3K High-Solid DT-F" and the three-pack topcoat "Duritan™ 3K High-Solid DT-HG", gloss level "high gloss", applied on fire resistant (DIN 4102-B1) particle boards - also veneered -
as fire resistant building material (building material class DIN 4102-B1) according to Building Regulation List A, Part 2, edition 2015/2, with changes 2016/1 and change notice 2016/2, serial number 2.10.2.

1.2 Range of Application

1.2.1 The clear lacquer system may be used for the coating of fire resistant (building material class DIN 4102-B1) particle boards - also veneered.

The particle boards coated with the lacquer systems may not be exposed to weathers in the open air.

The fire resistant (DIN 4102-B1) particle boards - also veneered - coated with the lacquer systems are only fire resistant without any additional coats of paint, laminations or similar.

1.2.2 This General Appraisal Certificate is only applied if requirements in accordance with the Building Regulations List A, Part 2, edition 2015/2, with changes 2016/1 and change notice 2016/2, serial number 2.10.2, have to be met.

1.2.3 The proof of further building control requirements, such as stability, fire resistance, thermal or sound insulation or the health and environment protection are not subject of this General Appraisal Certificate for Construction Products.

For this, further/other proofs (general technical approvals) might be required

(Seal)

Materials Testing Institute Stuttgart University

Page 4 of the General Appraisal Certificate P-BWU03-I-16.5.307 dated March 28, 2018

2. Building Product Requirements

2.1 Properties and Composition

2.1.1 The three-pack lacquer is a clear coating system on polyurethane basis.

Both, sealer and lacquer, must be used with the hardener "Duritan™ Hardener DH 1" and the activator "Duritan™ Activator DA 2".

Mixing ratio (by weight): Sealer : Hardener : Activator = 100 : 100 : 2
Top coat : Hardener : Activator = 100 : 100 : 2

2.1.2 The composition must correspond with the data deposited at the MPA - Stuttgart University (Otto-Graf-Institute).

2.1.3 Testing Procedure

The building product must meet the requirements on fire resistant building material (building material class B1) according to DIN 4102-1: 1998-05.

2.1.4 (Testing) specifications for granting the General Appraisal Certificate

Name of the testing centre	Client	Number of the certificates / test reports /	Test procedure / Rules
MPA Stuttgart University -Otto-Graf-Institute-	Akzo Nobel Hilden GmbH 40721 Hilden	900 6806 018/PZ-1 dated March 28, 2017	DIN 4102 Part 1 DIN 4102 Part 16

2.1.5 Provisions for the execution of the building product

2.1.5.1 The clear three-pack self sealing polyurethane lacquer system "Duritan™ 3K High-Solid" of gloss level "high gloss" (DT - HG) may be applied with the following wet rates of application on fire resistant (DIN 4102-B1) particle boards - also veneered - .

- The sealer "Duritan™ 3K High-Solid DT-F" with 2 x 100 g/m²
- The topcoat "Duritan™ 3K High-Solid DT-HG" with 1 x 100 g/m².

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2.1.5.2 The particle boards coated may not be exposed to weathers in the open air.

2.1.5.3 The fire resistant (DIN 4102 - B1) particle boards coated with the lacquer systems may not be coated with additional coats of paint, laminations or similar.

2.1.5.4 During the manufacture of the building product, the requirements of Section II 2.1 must be met.

**Materials Testing Institute
Stuttgart University**

Page 5 of the General Appraisal Certificate P-BWU03-I-16.5.307 dated March 28, 2018

2.2 Mark of Conformity

The manufacturer has to mark the building product with the mark of conformity (Ü-Zeichen) in accordance with the ordinance regulating marks of conformity of the Federal States. Marking may only be made if the requirements according to Section 3.1 to 3.3 have been met.

The mark of conformity must be applied on the building product or on the packaging (e.g. on the instruction leaflet) or, if this should not be possible, on the delivery note.

The following information has to be indicated on the building product or on the packaging:

- Name of the product
- Mark of conformity with
- Name of the manufacturer
- Approval number: P-BWU03-I-16.5.307
- Logo or name of the testing institute
- Manufacturing site
- Building material class fire resistant (DIN 4102 - B1) only on fire resistant (DIN 4102 - B1) particle boards - also veneered -

(Seal)

**Materials Testing Institute
Stuttgart University**

Page 6 of the General Appraisal Certificate P-BWU03-I-16.5.307 dated March 28, 2018

3. Proof of Conformity

3.1 General

The proof of conformity of the building product with the regulations of this General Appraisal Certificate for Construction Products 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 has to employ a licensed certification institute and a licensed supervision institute.

3.2 In-Plant Production Control

In each manufacturing site an in-plant production control¹⁾ must be installed and carried out, which guarantees by the continuous control of production carried out by the manufacturer that the building product meets the provisions of this General Appraisal Certificate. The "Instructions concerning the proof of conformity"²⁾ are applied on the execution of the in-plant production control.

The results of the in-plant production control must be recorded and analysed. The records must at least contain the following information:

- Designation of the building product
- Type of control
- Date of manufacture and of the test of the building product
- Results of controls and tests and, if applicable, comparison with the requirements
- Signature of the person responsible for the in-plant production control

The records must be kept for at least five years and must be presented to the supervision body employed for external control. In case of an insufficient test result, the manufacturer has immediately to take measures required to remedy the deficiency and to discard the product concerned. Within the framework of the in-plant production control, it must be ensured that building products that do not meet the requirements are not marked with the mark of conformity. After the deficiency has been remedied, the test must be repeated.

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¹⁾ Under consideration of the Building Regulations List A, Part 1, Par. 4 Edition 2015/2 (DIBT Report (German Institute for Building Technology) dated October 6, 2015).

²⁾ "Instructions concerning the proof of conformity for fire resistant building materials (building material class DIN 4102-B1) after the General Appraisal Certificate for Construction Products has been granted" (DIBT Report 2/1997)

**Materials Testing Institute
Stuttgart University**

Page 7 of the General Appraisal Certificate P-BWU03-I-16.5.307 dated March 28, 2018

3.3 External Control

In each manufacturing site, the in-plant production control must be checked by an external control at regular intervals, at least once a year.

For the execution of the control, the "Instructions concerning the proof of conformity"²⁾ have to be applied.

Within the framework of the external control, an initial test of the building product has to be carried out. During the current external control, specimens have to be taken for sampling inspection. The licensed supervision institute is responsible for taking the specimens and the tests.

The results of the certification and of the external control have to be kept for at least five years. Upon request, they have to be presented by the certification institute or the supervision institute to the supreme building authority.

4. Legal Basis

This General Appraisal Certificate is issued on the basis of §§ 22 of the State Building Regulation for North Rhine-Westphalia (BauO NRW) dated March 1, 2000 in the version dated November 25, 2017 in conjunction with the Building Regulations List A, Part 2, Edition 2015/2 with changes 2016/1 and change notice 2016/2, serial number 2.10.2. The State Building Regulations of the other Federal States contain corresponding legal grounds.

5. Instructions on Rights of Appeal

This General Appraisal Certificate can be opposed within one month after the receipt of the certificate. This opposition must be sent in writing or lodged at the Stuttgart University, Keplerstrasse 7, 70174 Stuttgart or PO Box 106037, 70049 Stuttgart.

Fire prevention Department
Behaviour of building materials in fire

The person in charge

(Seal)

The head of the testing institute

Signature

Signature

Dr. Sebastian Dantz

Dr. Stefan Lehner
Chief Acad. Director

²⁾ "Instructions concerning the proof of conformity for fire resistant building materials (building material class DIN 4102-B1) after the General Appraisal Certificate for Construction Products has been granted" (DIBT Report 2/1997)