Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

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European Technical Assessment ETA-15/0531 of 6 November 2025

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	"AESTUVER T" fire protective board
Product family to which the construction product belongs	Fire protective board
Manufacturer	James Hardie Europe GmbH Bennigsen-Platz 1 40474 Düsseldorf GERMANY
Manufacturing plant	1
This European Technical Assessment contains	11 pages including 6 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	350142-00-1106
This version replaces	ETA-15/0531 issued on 2 October 2015

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Specific Part

1 Technical description of the product

"AESTUVER T" is a special cement-bonded, glass fibre-reinforced board, produced from a mixture of cement, lightweight mineral aggregates and water. The fire protective board has a multi-layer design.

The fire protective board "AESTUVER T" meets the requirements of category A in accordance with EN 12467. The minimum modulus of rupture (MOR) in wet condition shall be at least 1.5 MPa.

Table 1 Dimensions and dry bulk density of "AESTUVER T" fire protective boards

Board thickness[1] [mm]	Length/width [mm]	Tolerance [mm]	Dry bulk density [kg/m³]
10 ± 1	≤ 3000 x 1250	± 2	1000 ± 15 %
≤ 60 ± 1			780 ± 15 %

Details on the materials used and the manufacturing process of "AESTUVER T" fire protective boards are deposited with Deutsches Institut für Bautechnik.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The "AESTUVER T" fire protective board is intended to be used as a fire protective cladding for building components or as a component of fire-resistant building components.

"AESTUVER T" fire protective boards are intended to be used in accordance with the use categories 1 to 10 given in EAD 350142-00-1106[2].

The "AESTUVER T" fire protective boards are suitable for non-structural internal applications and outdoor applications of category A in accordance with EN 12467.

Not all use categories were evaluated with regard to fire resistance within the framework of this European Technical Assessment. Annex B of this Assessment lists all designs for which the fire resistance performance was verified within the framework of this European Technical Assessment. Concerning fire resistance performance, this Assessment only applies to claddings and building components designed in accordance with the specifications given in Annex B.

The performances given in section 3 are only valid if the "AESTUVER T" fire protective boards are used in compliance with

- the specifications and conditions given in Annexes A to C and
- the manufacturer's instructions as stated in section 5.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the "AESTUVER T" fire protective boards of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

1 Intermediate board thicknesses are possible.

2 OJ C 417/07, 16.11.2018; p. 25: EAD 350142-00-1106 "Fire protective products - Fire protective board, slab and mat products and kits", Version September 2017.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1 in accordance with EN 13501-1 See Annex A
Resistance to fire	See Annex B

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Water impermeability	Resistant in accordance with EN 12467
Content and/or release of dangerous substances	The chemical composition of the product shall be in compliance with the composition deposited with the Technical Assessment Body (DIBt). The construction product does not contain or release dangerous substances according to EOTA TR034 (version October 2014).

3.3 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Bending strength	See Annex A
Dimensional stability	See Annex A

3.4 Protection against noise (BWR 5)

No performance assessed

3.5 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal resistance	No performance assessed
Water vapour transmission resistance value	See Annex A

3.6 General aspects

The verification of durability is part of testing the essential characteristics.

"AESTUVER T" fire protective boards are suitable for use in the following use category specified in EAD 350142-00-1106², with no essential changes in their fire protective properties to be expected:

Type X: Fire protective boards intended for all uses (internal, semi-exposed and exposed)

Concerning durability, the following characteristics were tested:

Characteristic	Performance
Resistance to deterioration caused by water	Resistant in accordance with EN 12467
Resistance to soak/dry	Resistant in accordance with EN 12467
Resistance to freeze/thaw	Resistant in accordance with EN 12467
Resistance to heat/rain	Resistant in accordance with EN 12467

Durability is only ensured if the specifications on the intended use stated in Annexes A and B and the manufacturer's instructions in section 5 are taken into account.

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with the European Assessment document EAD 350142-00-1106[2], the applicable European legal act is: 1999/454/EC.[3]

The system of assessment and verification of constancy of performance (AVCP) (see annex V and article 65, paragraph 2 to regulation (EU) N° 305/2011) is: System 1 as given in following table:

Product(s)	intended use	Level(s) or class(es)	AVCP-System
fire protective board "AESTUVER T"	For fire compartmentation and/or fire protection or fire performance	all	1

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

The technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

The manufacturer shall provide instructions on processing, packaging, transport, storage and use, maintenance and repair of the construction product.

Damaged fire protective boards shall not be installed or used.

Issued in Berlin on 6. November 2025 by Deutsches Institut für Bautechnik

Johanna Held
Head of Section

beglaubigt:
Haberstroh

[3] Decision N° 1999/454/EC of 22.06.1999 (OJ L 178/52 of 14.07.1999, p. 3), amended by decision N° 2001/596/EC of 8.01.2001 (OJ L 209/33 of 02.08.2001, p. 2)

Deutsches Institut für Bautechnik DIBt

1 Performance of the product

1.1 Safety in case of fire (BWR 2)

1.1.1 Reaction to fire

Pursuant to Commission Decisions 96/603/EC and 2000/605/EC[1], the uncoated "AESTUVER T" fire protective boards are classified in class A1 in accordance with EN 13501-1.

1.1.2 Resistance to fire

Annex B includes fire resistant designs verified within the framework this European Technical Assessment.

1.2 Safety and accessibility in use (BWR 4)

1.2.1 Bending strength

Mean value of the modulus of rupture (MOR) determined in accordance with EN 12467, clause 7.3.2

Thickness d	Mean value of the modulus of rupture (MOR)
≥ 10 mm	at least 3.0 MPa
≥ 30 mm	at least 2.5 MPa
60 mm	at least 1.5 MPa

1.2.2 Dimensional stability

Relative change in length and thickness after a change in the relative humidity, tested in accordance with EN 318

Thickness d	Relative change in length after a change in the relative humidity
10 mm	0.20 mm/m when the relative air humidity changes from 65 % to 85 %*
	-0.54 mm/m when the relative air humidity changes from 65 % to 30 %**
60 mm	0.32 mm/m when the relative air humidity changes from 65 % to 85 %*
	-0.57 mm/m when the relative air humidity changes from 65 % to 30 %**

Thickness d	Relative change in thickness after a change in the relative humidity
10 mm	-0.2 % when the relative air humidity changes from 65 % to 85 %*
	0.0 % when the relative air humidity changes from 65 % to 30 %**
60 mm	0.0 % when the relative air humidity changes from 65 % to 85 %*
	-0.1 % when the relative air humidity changes from 65 % to 30 %**

* swelling behaviour

** shrinking behaviour

1.3 Energy economy and heat retention (BWR 6)

1.3.1 Water vapour transmission resistance value in accordance with EN ISO 12572, test condition A

Thickness d	Water vapour diffusion resistance coefficient μ
10 mm	24
60 mm	10

[1] OJ L 267/23 of 19.10.1996 and OJ L 258/36 of 12.10.2000

2 Designs for which the fire-resistance was verified within the framework of this European Technical Assessment

Table 2 provides an overview of the fire resistance classes of all designs for which the fire resistance performance was evaluated in the context of this European Technical Assessment.

For the designs listed in this table and executed in accordance with the specifications given in these annexes, the fire resistance performance given shall be deemed verified within the framework of this European Technical Assessment.

Table 2

Design (evaluated within the framework of this ETA)	Classification in accordance with EN 13501-2	Test method	Intended use as stated in EAD 350142-00-1106 (use category	Details	Date of addition to this ETA
Load-bearing concrete members cladded by 50 mm thick "AESTUVER T" fire protective boards	Assessment in accordance with Annex C	prEN 13381-3	Type 3	Annex **C** Pages 8 to 10	02/10/2015

3 Load-bearing concrete members cladded with 50 mm "AESTUVER T" fire protective boards (use category 3 as stated in EAD 350142-00-1106)

3.1 General

The following design was tested and assessed in accordance with prEN 13381-3. It meets the requirements in respect of compliance with the temperature criterion in accordance with EN 1363-1 (standard temperature/time curve) when exposed to fire on one side only up to 360 minutes. It is valid for concrete slabs or walls in accordance with EN 206-1 and EN 1992-1-1 which are executed in accordance with the following provisions.

3.2 Description of the design

3.2.1 Concrete slab

Thickness	Density	Compressive strength	Concrete aggregates	Achieved deflection*	Reinforcement
≥ 140 mm	2356 kg/m³ ± 15%	C25/30 C30/37	Quartz aggregates	52 mm*	In accordance with EN 13381-3

* after a test duration of 360 minutes

3.2.2 Fire protective boards

50 mm thick "AESTUVER T" fire protective boards (1 layer) with a maximum dimension of 1650 mm x 625 mm (length x width) shall be used.

The fire protective boards shall be arranged beneath the concrete slab so that the concrete slab is completely cladded with the boards.

The fire protective boards shall be butt-jointed. The joints between the fire protective boards shall be lined centered over the joints with stripes consisting of the fire protective boards with a thickness of 10 mm and a width of at least 50 mm (when the concrete slabs are connected to adjacent building components with a fire-separating function) or in all other cases 100 mm. Cross joints shall be prohibited. The execution shall be in accordance with Annex C 3.

3.2.3 Fastening of the fire protective boards

The strips for the lining shall be fastened to the fire protective boards with staples.

The fire protective boards shall be fastened on 4 sides to the concrete member in accordance with Annex C 3.

Spacing of the fastening devices	≤ 415 mm
Distance to the edges	50 mm (parallel to the longitudinal direction of the board) 35 mm (perpendicular to the longitudinal direction of the board)
Staggering of the joints	≥ 450 mm
Fastening devices lining	Staples in accordance with EN 14592
Fastening devices boards	FNA II 6x30/60 (Fischer) or HECO MULTI-MONTI MMS-7.5 each with washers 24x8.4x2.0 mm

3.3 Determining the contribution of 50 mm thick "AESTUVER T" fire protective boards to the fire resistance of structural concrete members

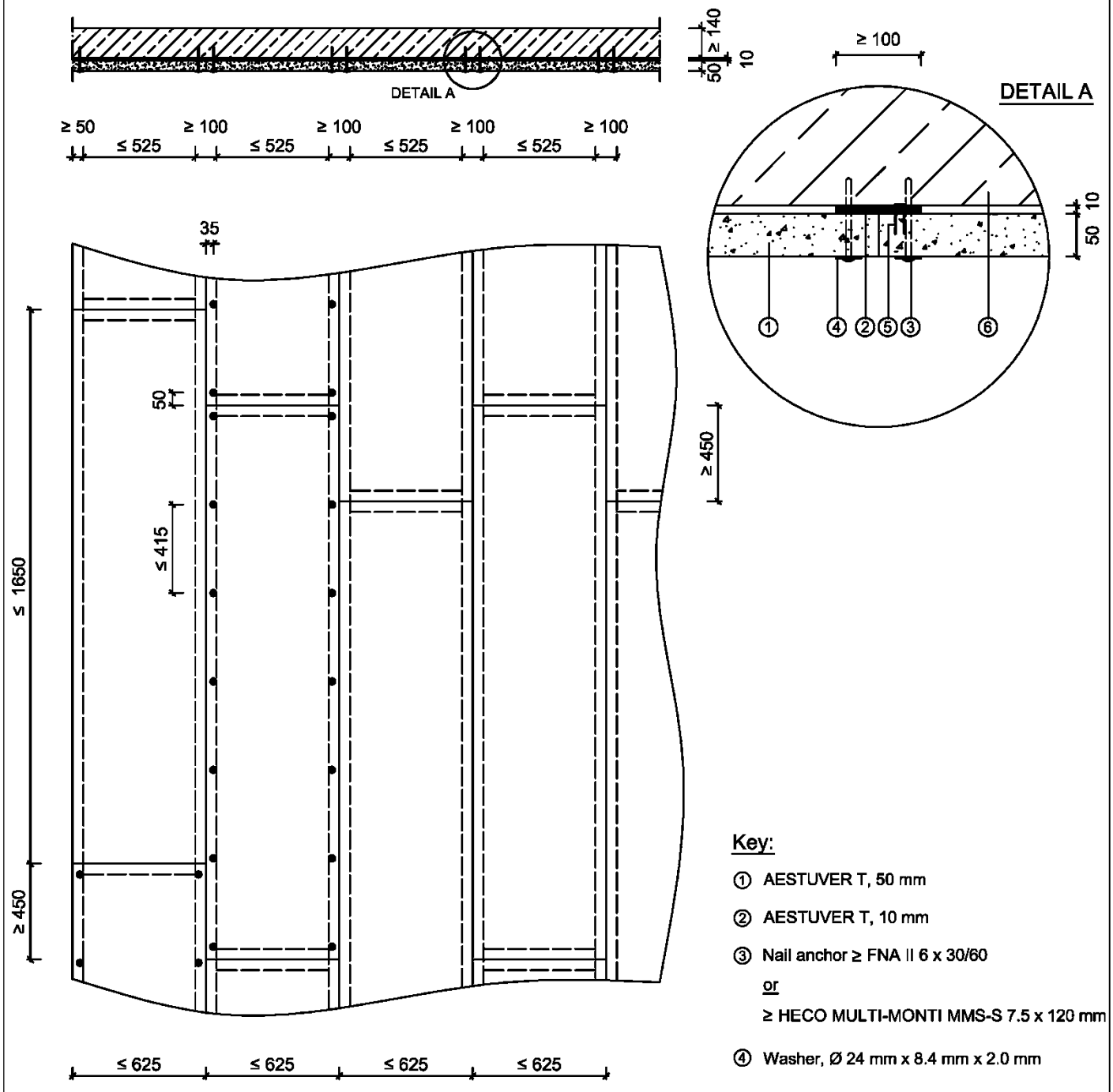
3.3.1 General

The cladding of 50 mm thick "AESTUVER T" fire protective boards for the protection of structural concrete members was determined in accordance with prEN 13381-3 with regard to

- the insulation performance in accordance with the criteria of EN 1363-1
- the stickability when exposed to fire up to 360 minutes in accordance with EN 1363-1
- the determination of equivalent thickness of concrete relating to the insulation when exposed to fire up to 240 minutes in accordance with EN 1363-1.

3.3.2 Characteristic temperature and equivalent thickness of the concrete for concrete slabs cladded with "AESTUVER T" fire protective boards of a thickness of 50 mm

Period of exposure to fire [minutes]	Characteristic temperature inside concrete slab at 15 mm deep [°C]	Equivalent thickness of concrete ε [mm]
30	19	95
60	33	109
90	58	113
120	79	120
240	126	141



Key:

① AESTUVER T, 50 mm

② AESTUVER T, 10 mm

③ Nail anchor ≥ FNA II 6 x 30/60
or
≥ HECO MULTI-MONTI MMS-S 7.5 x 120 mm

④ Washer, Ø 24 mm x 8.4 mm x 2.0 mm

⑤ Staple, 35 x 11.25 x 1.5 mm

⑥ Concrete element according to annex C1

"AESTUVER T" fire protective board	**Annex C 3**
Use category 3 – Protection of load-bearing concrete members Arrangement and design of the fire protective boards	

5 Reference list

EAD 350142-00-1106	Fire protective products – Fire protective board, slab and mat products and kits (September 2017)
EN 13501-1	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
EN 13501-2	Fire classification of construction products and building elements - Part 2: Classification using data from resistance tests, excluding ventilation services EN 1363-1 Fire Resistance tests – Part 1: General requirements
prEN 13381-3:2008	Test methods for determining the contribution to the fire resistance of structural members - Part 3: Applied protection to concrete members
EN 318	Wood-based panels – Determination of dimensional changes associated with changes in relative humidity
EN 12467	Fibre cement flat sheets – Product specification and test methods
EN ISO 12572	Hygrothermal performance of building materials and products - Determination of water vapour transmission properties