

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-17/0608
of 9 November 2017

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

CE-Battens PHplus

Product family
to which the construction product belongs

Structural wet and/ or cold glued finger jointed solid timber

Manufacturer

PFEIFLE-HOLZ OHG
Sägewerk u. Holzhandlung
Schorrental 41
72297 Seewald
DEUTSCHLAND

Manufacturing plant

01

This European Technical Assessment
contains

6 pages including 1 annex which forms an integral part of
this assessment

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

EAD 130089-00-0304

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Specific part

1 Technical description of the product

CE-Battens PHplus are structural finger jointed timber made from Norway spruce (*Picea abies*, PCAB) and/ or Fir (*Abies alba*, ABAL) graded according to EN 14081-1.

One component polyurethane adhesives type I according to the specification deposited at DIBt are used to glue the finger joints.

The depth of the CE-Battens PHplus is not less than 30 mm and not more than 40 mm. The width b of the CE-Battens PHplus is not less than 50 mm and doesn't exceed 60 mm. The dimensions refer to a moisture content of 20 %. Deviations according to dimensional tolerance class 1 of EN 336 are permitted.

The finger joints are visible on the broadside of timber (see figure 1). The maximum glue line thickness of the finger joints is 0.1 mm.

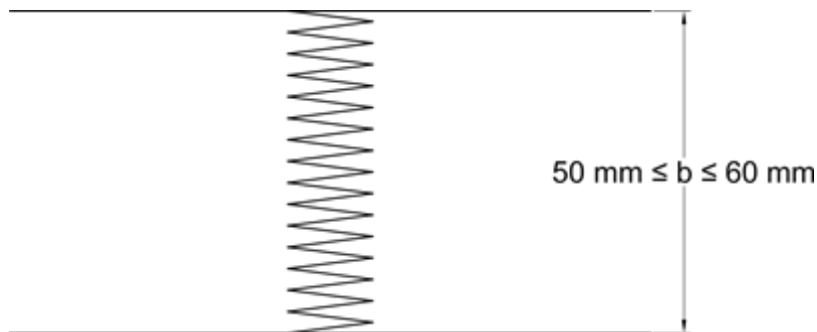


Figure 1 Top view on the structural finger jointed timber

Structural finger jointed timber preservative treated or treated with fire retardants and the use of recycled materials are not covered by this ETA.

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

The performances given in Section 3 are only valid if the CE-Battens PHplus are used in compliance with the specifications and conditions given in Annex 1.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the Battens PHplus of at least 50 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.

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

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Strength and stiffness properties of timber	C24
Bending strength of finger joints as bending strength of timber for the reference depth of 150 mm	$f_{m,y,k} = 24,8 \text{ N/mm}^2$
Durability of bonding strength	See Annex 1
Durability against biological attack	See Annex 1

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	D-s2,d0

3.3 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content, emission and/or release of dangerous substances	
Substance/s classified as EU-cat. Carc. 1A and/or 1B in accordance with Regulation (EC) No 1272/2008.	The product does not contain these dangerous substances. ^{a)}
Substance/s classified as EU-cat. Muta. 1A and/or 1B in accordance with Regulation (EC) No 1272/2008.	
Substance/s classified as EU-cat. Acute Tox. 1, 2 and/or 3; Repr. 1A and/or 1B; STOT SE 1 and/or STOT RE 1 in accordance with Regulation (EC) No 1272/2008.	
Use scenarios regarding BWR 3 in accordance with EOTA TR 034: IA 1, IA 2	

^{a)} Assessment based on a detailed manufacturer's product declaration.

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

In accordance with EAD No. 130089-00-0304 the applicable European legal act is: 97/176/EC of 1997-02-17 (see OJEU L73 of 1997-03-14) amended by 2001/596/EC of 2001-01-08 (see OJEU L209 of 2001-08-02).

The system to be applied is: 1

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

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

Issued in Berlin on 9 November 2017 by Deutsches Institut für Bautechnik

BD Dipl.-Ing. Andreas Kummerow
Head of Department

beglaubigt:
Dewitt

Annex 1 Specifications of intended use

A.1.1 Use of the CE-Battens PHplus only:

- for static and quasi-static (non-fatigue) loads
- in service classes 1 and 2 according to EN 1995-1-1
- as roof battens in load bearing timber structures

A.1.2 Use Conditions (environmental conditions)

With regard to the use and the environmental conditions, the national provisions of the place of installation apply.

The natural durability of Norway spruce and Fir is given in EN 350¹.

A.1.3 Manufacturing provisions

The CE-Battens PHplus are produced according to EN 15497:2014, Annex G, unless otherwise specified in the following. As given in EN 15497:2014, clause 5.2.2 Norway spruce and Fir may be considered as one species. Norway spruce and/ or Fir timber with different moisture content may be used to glue the finger joints. The difference of the moisture content of the timber members may be up to 20 percentage points. The moisture content of the timber members can exceed 18 % but is not higher than 40 %. The minimum moisture content of the timber members shall be 8 %.

The timber and air temperature in the production and during the curing process can be lower than 15°C but shall not be lower than 10°C and shall not exceed 30°C.

The maximum assembly time between adhesive application and pressing of the finger joint shall not exceed 5 min at an ambient temperature of 20°C, a relative air humidity of 65 % and a timber moisture content of 12 %.

The curing time of the finger joints shall be at least 30 min at ambient temperatures of 10°C up to 20°C, a relative air humidity of 65 % and a timber moisture content of 12 %.

A.1.4 Installation provisions

EN 1995-1-1² in conjunction with the respective national annex applies for the installation.

The structural finger jointed timber shall be applied with a moisture content of ≤ 20 % in use.

The maximum span of battens made from structural finger jointed wet and cold glued solid timber shall be 1.0 m.

¹ EN 350:2016 Durability of wood and wood-based products – Testing and classification of the durability to biological agents of wood and wood-based materials

² EN 1995-1-1:2004+A1:2008+A2:2014 Eurocode 5: Design of timber structures – Part 1-1: General - Common rules and rules for buildings

CE-Battens PHplus	Annex 1
Specifications of intended use	