



EUROPEAN ASSESSMENT DOCUMENT

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BOARDS MADE FROM RECYCLED BEVERAGE CARTONS FOR USE IN CONSTRUCTION

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This European Assessment Document (EAD) has been developed taking into account up-to-date technical and scientific knowledge at the time of issue and is published in accordance with the relevant provisions of Regulation (EU) 305/2011 as a basis for the preparation and issuing of European Technical Assessments (ETA).

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1 SCOPE OF THE EAD

1.1 Description of the construction product

Boards made from recycled beverage cartons (in the following called boards), double skin paper faced, total thickness of (8 – 22) mm. The boards are made by pressing pulp/grinded chips of "non-hazardous" sorted beverage cartons at high temperature. The EAD is only applicable when FPC system ensures that the source materials for the product are sorted cartons which do not incorporate any hazardous components; moreover, no additives, fire retardants and adhesives can be used in the production phase. Each of the skin is formed by single or double paper sheet layer of total square weight 40-260g/m².

The surface of panels can be finished by plastering, tiles, painting, veneers, etc.

The product is not fully covered by the following harmonised technical specification:

EN 13986:2004 + A1:2015 Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking due the fact, that the product is not wood-based and the essential characteristics pull through resistance of fasteners, Shore hardness, propensity to undergo continuous smouldering were added. The raw material of product is pulp of crushed beverage/food cartons which consists of paper fibres (cca 75%), polyethylene (cca 20%) and aluminium (cca 5%).

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

Relevant manufacturer's stipulations having influence on the performance of the product covered by this European Assessment Document shall be considered for the determination of the performance and detailed in the ETA.

1.2 Information on the intended use(s) of the construction product

1.2.1 Intended use(s)

For internal and external structural and non-structural uses in construction for exposures corresponding to class UC 1 and UC 2 according to EN 335¹.

1.2.2 Working life/Durability

The assessment methods included or referred to in this EAD have been written based on the manufacturer's request to take into account a working life of the boards made from recycled beverage cartons for the intended use of 30 years when installed in the works. These provisions are based upon the current state of the art and the available knowledge and experience.

When assessing the product, the intended use as foreseen by the manufacturer shall be taken into account. The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works².

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by EOTA when drafting this EAD nor

¹ All undated references to standards or to EAD's in this document are to be understood as references to the dated versions listed in chapter 4.

² The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works is subject, as well as on the particular conditions of the design, execution, use and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than referred to above.

by the Technical Assessment Body issuing an ETA based on this EAD but are regarded only as a means for expressing the expected economically reasonable working life of the product.

2 ESSENTIAL CHARACTERISTICS AND RELEVANT ASSESSMENT METHODS AND CRITERIA

2.1 Essential characteristics of the product

Table 2.1.1 shows how the performance of boards made from recycled beverage cartons is assessed in relation to the essential characteristics.

Table 2.1.1 Essential characteristics of the product and methods and criteria for assessing the performance of the product in relation to those essential characteristics

No	Essential characteristic	Assessment method	Type of expression of product performance
Basic Works Requirement 1: Mechanical resistance and stability			
1	Modulus of elasticity in bending	2.2.1	Level (E_m [N/mm ²])
2	Bending strength	2.2.2	Level (f_m [N/mm ²])
3	Tensile strength for structural use	2.2.3	Level (f_t [N/mm ²])
4	Compressive strength for structural use	2.2.4	Level (f_c [N/mm ²])
5	Shear strength for structural use	2.2.5	Level (f_v [N/mm ²])
6	Racking resistance	2.2.6	Level ($F_{Rd,max,k}$ [N]) Level (R_{mean} [N/mm])
7	Duration of load factor and creep factor for structural use	2.2.7	Level (k_d [-], k_c [-])
8	Impact resistance	2.2.8	Class
Basic Works Requirement 2: Safety in case of fire			
9	Reaction to fire	2.2.9	Class
10	Propensity to undergo continuous smouldering	2.2.10	Description

No	Essential characteristic	Assessment method	Type of expression of product performance
Basic Works Requirement 3: Hygiene, health and the environment			
11	Vapour permeability	2.2.11	Level (μ [-])
12	Air permeability	2.2.12	Level (V_0 [m ³ /h])
Basic Works Requirement 4: Safety and accessibility in use			
13	Tensile strength perpendicular to faces	2.2.13	Level ($f_{t,\perp}$ [N/mm ²])
14	Pull through resistance of fasteners	2.2.14	Level (f_{head} [N/mm ²])
15	Indentation hardness by means of a durometer Shore D (Shore hardness)	2.2.15	Level [-]
16	Durability – swelling in thickness after immersion in water	2.2.16	Level (G_t [%])
17	Durability – moisture resistance - residual tensile strength perpendicular to faces - residual swelling in thickness after immersion in water	2.2.17	Level ($f_{t,\perp, res}$ [N/mm ²]) Level ($G_{t, res}$ [%])
18	Durability to biological agents	2.2.18	Class
Basic Works Requirement 5: Protection against noise			
19	Airborne sound insulation	2.2.19	Level ($R_w(C;C_{tr})$ [dB])
20	Sound absorption	2.2.20	Level (α [-])
Basic Works Requirement 6: Energy economy and heat retention			
21	Thermal conductivity	2.2.21	Level (λ [W/(m·K)])

2.2 Methods and criteria for assessing the performance of the product in relation to essential characteristics of the product

This chapter is intended to provide instructions for TABs. Therefore, the use of wordings such as “shall be stated in the ETA” or “it has to be given in the ETA” shall be understood only as such instructions for TABs on how results of assessments shall be presented in the ETA. Such wordings do not impose any obligations for the manufacturer and the TAB shall not carry out the assessment of the performance in relation to a given essential characteristic when the manufacturer does not wish to declare this performance in the Declaration of Performance.

2.2.1 Modulus of elasticity in bending

The modulus of elasticity in bending shall be tested according to EN 310. The minimum number of samples is stated in EN 13986+A1, Table 11 (Clause 6.2.2, number of boards) and EN 326-1, Table 1 (number of samples for each board).

The modulus of elasticity in bending for structural use shall be tested according to EN 789 and expressed as characteristic value according to EN 1058. The minimum number of samples is stated in EN 13986+A1, Table 11 (Clause 6.2.2).

At least the boards of maximum thickness and with the skin formed by paper of minimum total square weight shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested sample.

The characteristic value of the modulus of elasticity in bending E_m [N/mm²] shall be given in ETA.

2.2.2 Bending strength

The bending strength shall be tested according to EN 310. The minimum number of samples is stated in EN 13986+A1, Table 11 (number of boards) and EN 326-1, Table 1 (number of samples for each board).

The bending strength for structural use shall be tested according to EN 789 and expressed as characteristic value according to EN 1058. The minimum number of samples is stated in EN 13986+A1, Table 11.

At least the boards of maximum thickness and with the skin formed by paper of minimum total square weight shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested sample.

The characteristic value of the bending strength f_m [N/mm²] shall be given in ETA.

2.2.3 Tensile strength for structural use

The tensile strength for structural use shall be tested according to EN 789 and expressed as characteristic value according to EN 1058. The minimum number of samples is stated in EN 13986+A1, Table 11.

At least the boards of maximum thickness and with the skin formed by paper of minimum total square weight shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested sample.

The characteristic value of the tensile strength f_t [N/mm²] shall be given in ETA.

2.2.4 Compressive strength for structural use

The compressive strength for structural use shall be tested according to EN 789 and expressed as characteristic value according to EN 1058. The minimum number of samples is stated in EN 13986+A1, Table 11.

At least the boards of max. thickness and with the skin formed by paper of min total square weight shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested sample.

The characteristic value of the compressive strength f_c [N/mm²] shall be given in ETA.

2.2.5 Shear strength for structural use

The shear strength perpendicular to the plane for structural use shall be tested according to EN 789 and expressed as characteristic value according to EN 1058. The minimum number of samples is stated in EN 13986+A1, Table 11.

At least the boards of max. thickness and with the skin formed by paper of min. total square weight shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested sample.

The characteristic value of the shear strength f_v [N/mm²] shall be given in ETA.

2.2.6 Racking resistance (wall sheathing on studs)

The racking strength $F_{Rd\ max\ k}$ [N] and stiffness R_{mean} [N/mm] for boards used as wall sheathing on studs shall be determined according to EN 594. The characteristic values shall be calculated according to EN 14358, Clause 3 using normal distribution. The value can only be used for the tested system.

At least three panels and the boards of min. thickness and with the skin formed by paper of min total square weight shall be tested. The result of test is applicable for the board of higher thickness and higher square weight of the skin than tested sample.

The characteristic value of the racking strength $F_{Rd\ max\ k}$ [N] and mean value of stiffness R_{mean} [N/mm] shall be given in ETA.

2.2.7 Duration of load factor and creep factor for structural use

Duration of load factor and creep factor which express mechanical durability, shall be determined according to EN 1156, Method 1. The minimum number of samples is stated in EN 13986+A1, Table 11 (Clause 6.2.2). Test specimens shall be conditioned in accordance with Clause 5.3 of EN 1156 regarding to service class according to EN 1995-1-1, respecting class according to EN 335, for which the product is intended by the manufacturer.

At least the boards of max. thickness and with the skin formed by paper of min. total square weight shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested sample.

The value of duration of load factor k_d [-] and creep factor k_c [-] shall be calculated taking the intended working life into account. The symbol k_d shall embrace the time of loading and service class to which is applies (e.g., $k_{d,10Y, SC1}$ - 10 years, SC1 conditions). The symbol k_c shall embrace the time of loading, service class and level of stress to which is applies (e.g., $k_{c,10Y, SC1, 25\%}$ - 10 years, SC1 conditions, stress level of 25 %).

The value of duration of load factor k_d [-] and creep factor k_c [-] shall be given in ETA.

2.2.8 Impact resistance for structural use

The impact resistance shall be tested:

- boards used in floor decking and roof decking according to EN 1195 Clause 6.4.2, 6.5.3 and EN 12871, Clause 6.2.5, 7.2 with maximum distance of the loadbearing supports for which the product is intended by the manufacturer and for default distance of 600 mm.
- boards used in framed sheathing according to EN 596 and EN 12871, Clause 6.3.1, 6.3.2, 7.2 on maximum size of the frame for intended use of the boards.

The maximum distance of the loadbearing supports (for floor and roof decking) and/or maximum size of the frame (for framed sheathing) shall be given in ETA.

At least the boards of min. thickness and with the skin formed by paper of min total square weight shall be tested. The result of test is applicable for the board of higher total thickness and higher square weight of the skin than tested sample and for smaller distances of the loadbearing supports.

The class of impact resistance for default (600 mm) and maximum distance of the load bearing supports shall be given in ETA.

2.2.9 Reaction to fire

The boards shall be tested according to the method(s) referred to in EN 13501-1 and relevant for the corresponding reaction to fire class. The product shall be classified according to the Commission Delegated Regulation (EU) No 2016/364.

For mounting and fixing of the test specimens as well as for the application of test results the provisions given in annex A shall apply.

The determined class shall be stated in the ETA.

2.2.10 Propensity to undergo continuous smouldering

The performance of the product's propensity to undergo continuous smouldering shall be tested and assessed in accordance with EN 16733.

The conditions and parameters which shall be taken into account within the test as well as the rules for the application of the test results are specified below.

At least 2 specimens of the maximum thickness of the produced board with maximum square weight of the paper skin shall be tested.

The results of tests considering the aforementioned parameters in fully are also valid for products:

- with lower thickness
- with higher density
- with higher square weight of the paper skin

In accordance with EN 16733 clause 11, the ETA shall specify the following information, depending on the out-come of the assessment:

- “The product does not show propensity to undergo continuous smouldering”;
- “The product shows propensity to undergo continuous smouldering” or
- "Assessment of the propensity to undergo continuous smouldering is not possible".

2.2.11 Vapor permeability

Vapour permeability shall be tested according to EN ISO 12572 using testing condition A according to Table 1 of the mentioned standard and method of dry bowl.

The characteristics is expressed by the water vapour resistance factor, μ (-). 5 specimens shall be taken.

The value of the vapour resistance factor μ (-) shall be given in ETA.

2.2.12 Air permeability

The air permeability of boards is relevant only for external use and shall be determined and expressed, where required, as the air permeability coefficient V_0 [m³/h] according to EN 12114.

At least the boards of min. thickness and with the skin formed by paper of min total square weight shall be tested. The result of test is applicable for the board of higher thickness and higher square weight of the skin than tested sample.

The air permeability V_0 [m³/h] shall be given in ETA.

2.2.13 Tensile strength perpendicular to faces

Tensile strength perpendicular to faces shall be tested according to EN 319.

The minimum number of samples is stated in EN 13986+A1, table 11 (number of boards) and EN 326-1, Table 1 (number of samples for each board).

At least a board of max. produced thickness shall be tested. The result of test is applicable for the board of lower total thickness than tested sample.

The value of tensile strength perpendicular to faces $f_{t,\perp}$ [N/mm²] expressed as 5 percentile according EN 326-1, clause 7 shall be given in ETA.

2.2.14 Pull through resistance of fasteners

The pull through parameter, f_{head} , shall be determined according to EN 1383 and EN 14358 using the countersunk-head screws of effective diameter d_h of the head of 8 mm.

The minimum number of 6 samples per board of min. thickness and with the skin formed by paper of min. total square weight are advised.

The result of test is applicable for the board of higher total thickness and higher square weight of the skin than tested sample and it is valid for stated dowel type fastener - screw.

The characteristic pull-through parameter determined using log-normal distribution according to EN 14358 for stated type of screw shall be given in ETA.

NOTE : If another effective diameter d_h will be used, that shall be given in ETA.

2.2.15 Indentation hardness by means of a durometer (Shore hardness)

Hardness shall be determined by durometer Shore type D according to EN ISO 868.

5 samples per board type shall be tested. The result of test is applicable for the board of lower total thickness and higher square weight of the skin than tested.

The average value of hardness Shore D [-] shall be given in ETA.

2.2.16 Durability – swelling in thickness after immersion in water

Swelling in thickness after immersion in water in duration of 24 h shall be tested according to EN 317. The results shall be expressed as 95 percentile $U_{95\%}$ according to EN 326-1, Clause 7.3.6. A minimum number of samples is stated in EN 13986+A1, Table 11 (number of boards) and EN 326-1, Table 1 (number of samples for each board).

At least the boards of min. thickness and with the skin formed by paper of max. total square weight shall be tested. The result of test is applicable for the board of higher total thickness and lower square weight of the skin than tested sample.

The value of the swelling in thickness after immersion in water G_t [%] shall be given in ETA.

2.2.17 Durability – moisture resistance

Moisture resistance shall be tested according to EN 321 and expressed as:

- 5 percentile according to EN 326-1 for residual transverse tensile strength perpendicular to the plane of the board according to EN 319 - $f_{1\perp, res}$ and
- 95 percentile according to EN 326-1 for residual swelling in thickness according to EN 317 - $G_{t, res}$ (%)

At least a board of max. produced thickness shall be tested according to EN 319 after cycling according to EN 321.

At least a board of min. produced thickness and with the skin formed by paper of maximum total square weight shall be tested according to EN 317 after cycling according to EN 321. The result of test is applicable for the board of higher total thickness and lower square weight of the skin than tested sample.

The minimum number of samples is stated in EN 13986+A1, Table 11 (number of boards) and EN 326-1, Table 1 (number of samples for each board)..

The results of tests are applicable for boards of the same or higher total thickness than the tested sample, and for the tested skin.

The sound absorption coefficient α_s [-] shall be given in ETA.

2.2.18 Thermal conductivity

Thermal conductivity shall be tested according to EN 12664 using the heat flow meter method. The testing samples shall be conditioned 24 h at $(23\pm 2)^\circ\text{C}$ and $(50\pm 5)\%$ relative humidity.

Minimum of 3 specimens with the skin formed by paper of the lowest total square weight are advised to be taken. The result of test is applicable for the board of higher square weight of the skin than tested sample.

The maximum value of thermal conductivity λ [W/(m·K)] shall be given in ETA.

3 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE

3.1 System(s) of assessment and verification of constancy of performance to be applied

For the products covered by this EAD the applicable European legal act is:

Decision 97/462/EC, as amended by Decision 2001/596/EC.

The systems are:

2+ for structural use internal and external,

3 for non-structural use internal and external

Note: AVCP system 1 is not relevant so as the product does not contain any additives, there is no identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g., an addition of fire retardants or a limiting of organic material).

3.2 Tasks of the manufacturer

The cornerstones of the actions to be undertaken by the manufacturer of the product in the procedure of assessment and verification of constancy of performance are laid down in Table 3.2.1

Table 3.2.1 Control plan for the manufacturer; cornerstones

No	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
Factory production control (FPC) [including testing of samples taken at the factory in accordance with a prescribed test plan]					
1	Control of incoming raw material (non-hazardous beverage cartons only)	visual	Control plan	-	each supply
2	Modulus of elasticity in bending	2.2.1	Control plan	6	1 per 2 weeks
3	Bending strength	2.2.2	Control plan	6	1 per 2 weeks
4	Modulus of elasticity in bending for structural use ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.1		6	1 per 6 months
5	Bending strength for structural use ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.2		6	1 per 6 months
6	Tensile strength for structural use ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.3		6	1 per 6 months
7	Compressive strength for structural use ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.4		6	1 per 6 months
8	Shear strength for structural use ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.5		6	1 per 6 months
9	Duration of load factor and creep factor for structural use ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.7		6	1 per 12 months
10	Reaction to fire ¹⁾	EN 323 EN 325	Control plan	6	1 per 4 weeks
		2.2.9		6	1 per 12 months
11	Tensile strength perpendicular to faces	2.2.13	Control plan	6	1 per 4 weeks
12	Durability – swelling in thickness after immersion in water	2.2.16	Control plan	6	1 per 4 weeks
13	Durability – moisture resistance	2.2.17	Control plan	6	1 per 6 months
Note ¹⁾ If repeated testing establishes relationship between the main (reference) method and the density, the control of characteristic can be substituted by (simplified) method according to EN 323 and EN 325.					

3.3 Tasks of the notified body

The cornerstones of the actions to be undertaken by the notified body of the product in the procedure of assessment and verification of constancy of performance are laid down in Table 3.3.1

Table 3.3.1 Control plan for the notified body; cornerstones

No	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
Initial inspection of the manufacturing plant and of factory production control <i>(for systems 2+ only)</i>					
1	Notified Body will ascertain that the factory production control with the staff and equipment are suitable to ensure a continuous and orderly manufacturing of the boards.	Verification of the complete FPC as described in the control plan agreed between the TAB and the manufacturer	Control plan	According to Control plan	When starting the production or a new line
Continuous surveillance, assessment and evaluation of factory production control <i>(for systems 2+ only)</i>					
2	The Notified Body will ascertain that the system of factory production control and the specified manufacturing process are maintained taking account of the control plan.	Verification of the controls carried out by the manufacturer as described in the control plan agreed between the TAB and the manufacturer with reference to the raw materials, to the process and to the product as indicated in Table 3.2.1	According to Control plan	According to Control plan	1 per year

4 REFERENCE DOCUMENTS

EN 310:1993	Wood based panels. Determination of modulus of elasticity in bending and of bending strength
EN 317:1993	Particleboards and fibreboards. Determination of swelling in thickness after immersion in water
EN 319:1993	Particleboards and fibreboards. Determination of transverse tensile strength perpendicular to the plane of the board
EN 321:2001	Wood-based panels - Determination of moisture resistance under cyclic test conditions
EN 323:1993	Wood-based panels. Determination of density
EN 325:2012	Wood-based panels - Determination of dimensions of test pieces
EN 326-1:1994	Wood-based panels - Sampling, cutting and inspection - Part 1: Sampling and cutting of test pieces and expression of test results
EN 335:2013	Durability of wood and wood-based products - Use classes: definitions, application to solid wood and wood-based products
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
EN ISO 354:2003	Acoustics - Measurement of sound absorption in a reverberation room
EN 594:2011	Timber structures - Test methods - Racking strength and stiffness of timber frame wall panels
EN 596:1995	Timber structures - Test methods - Soft body impact test of timber framed walls
EN 789:2004	Timber structures - Test methods - Determination of mechanical properties of wood based panels
EN ISO 868:2003	Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness)
EN 1156:2013	Wood-based panels - Determination of duration of load and creep factors
EN 1058:2009	Wood-based panels - Determination of characteristic 5-percentile values and characteristic mean values
EN 1195:1997	Timber structures - Test methods - Performance of structural floor decking
EN 1383:2016	Timber structures - Test methods - Pull through resistance of timber fasteners
EN ISO 717-1: 2020	Acoustics - Rating of sound insulation in buildings and of building elements - Part 1: Airborne sound insulation
EN 1995-1-1:2004/ AC:2006+A1:2008+A2:2014	Eurocode 5: Design of timber structures – Part 1-1: General – Common rules and rules for buildings
EN ISO 10140-2: 2021	Acoustics - Laboratory measurement of sound insulation of building elements - Part 2: Measurement of airborne sound insulation

EN ISO 10140-4: 2021	Acoustics - Laboratory measurement of sound insulation of building elements - Part 4: Measurement procedures and requirements
EN ISO 11925-2: 2020	Reaction to fire tests - Ignitability of building products subjected to direct impingement of flame - Part 2: Single-flame source test
ENV 12038:2002	Durability of wood and wood-based products - Wood-based panels - Method of test for determining the resistance against wood-destroying basidiomycetes
EN 12114:2000	Thermal performance of buildings - Air permeability of building components and building elements - Laboratory test method
EN ISO 12572:2016	Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method
EN 12664:2001	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Dry and moist products of medium and low thermal resistance
EN 12871:2013	Wood-based panels - Determination of performance characteristics for load bearing panels for use in floors, roofs and walls
EN 13238:2010	Reaction to fire tests for building products - Conditioning procedures and general rules for selection of substrates
EN 13501-1:2018	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
EN 13823: 2020	Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item
EN 13986:2004+A1:2015	Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking
EN 14358:2016	Timber structures – Calculation of characteristic 5-percentile values and acceptance criteria for a sample
EN 16733:2016	Reaction to fire tests for building products - Determination of a building product's propensity to undergo continuous smouldering

ANNEX A: REACTION TO FIRE

A.1 EN ISO 11925-2 Ignitability - Single-flame source test

Test specimens shall be conditioned in accordance with Clause 4.2 of EN 13238. The product has to be tested free standing and with surface exposure and edge exposure.

Where relevant both external and internal product surfaces/edged must be exposed to the flame attack.

The results of tests are valid for:

- product of the same composition of recycled raw material
- product of the same or higher thickness
- product of the same or higher density
- product with the same square weight and type of paper.

A.2 EN 13823+A1 SBI test

The test is carried out according to the procedure defined in EN 13823 including the requirements for test specimen and its installation according to Clause 5 and Clause 5.2 EN 13823. The boards shall be free standing or fixed the same way as in the end use.

The product with identical surface finishes on both sides are tested at on side only. Products with different surface finishes shall be tested on both sides or with the side representative for the worst performance directed to fire.

The results of tests are valid for:

- product of the same composition of recycled raw material
- product of the same or higher thickness
- product of the same or higher density
- product with the same square weight and type of paper
- product fixed with the same type of mechanical devices as tested, or devices of reaction to fire class A1