

**BRL 1101**  
**dd. 2005-05-25**

**NATIONAL ASSESSMENT DIRECTIVE**  
**FOR THE**  
**KOMO<sup>®</sup> PRODUCT CERTIFICATE**  
**FOR**  
**PARTICLEBOARD**

Technical area: E2 Wood-based sheet material

**Enacted by the Committee of Experts of SKH on 11-05-2005**

**Accepted by the Building Harmonization Committee of SBK**  
**dd. 06-07-2006**

**Publication: Certification-body SKH**

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## **GENERAL INFORMATION**

This national assessment directive has been declared binding on 11-05-2005 by the certification-body SKH in accordance with the SKH Regulations for Certification and shall be employed for the issuing of a KOMO® product certificate “Particleboard” as from 06-07- 2006.

This assessment directive replaces the assessment directive BRL 1101 “Particleboard” dd. 2004-04-01.

The Dutch version shall be consulted in case of doubt.

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## **1. INTRODUCTION**

### **1.1 General**

The requirements set out in this assessment directive are used by the certification-bodies, which have been duly accredited by the Council for Accreditation in the Netherlands for the processing of an application respectively the maintaining of a KOMO<sup>®</sup> product certificate for “Particleboard”.

The quality declaration to be issued has been indicated as a KOMO<sup>®</sup> product certificate.

Requirement derived from public legislation are laid down in chapter 3.

Alongside the requirements laid down in this assessment directive, the certification-bodies lay down supplementary requirements, in the sense of general procedure requirements for certification, as determined in the general certification regulation of the institute concerned.

### **1.2 Subject**

The quality declaration refers to particleboard, both for use in constructions and for non-structural use and intended to be used in, among other things, the building industry, civil engineering, as well as in the joinery, furniture and packaging industry.

### **1.3 Validity**

This National assessment directive replaces BRL 1101 dd. 2004-04-01. Existing product certificates issued on the basis of this (and/or earlier) expired BRL-version(s) keep their validity up to 01-01-2007.

## **2. PROCEDURE FOR OBTAINING A PRODUCT CERTIFICATE**

### **2.1 Start**

The applicant of the product certificate supplies the necessary particulars for the purpose of drawing up the “technical specification”. He indicates which statements have to be included in the quality declaration and provides the evidence for these statements.

### **2.2 Acceptance investigation**

The certification-body examines whether the statements to be included in the product certificate in respect of:

- structural use in constructions comply with chapters 3 and 4;
- non-structural uses comply with chapter 4, sections 4.2, 4.3 and 4.4.

A report shall be made of the acceptance investigation on the basis of which the KOMO® product certificate is granted, whether or not under certain conditions.

### **2.3 Assessment of the quality system of the applicant**

The certification-body examines whether the quality system of the applicant of a product certificate complies with chapter 5.

*Remark:*

*Companies being certified on the basis of NEN-EN-ISO 9001 are considered to comply with the requirements of chapter 5, provided that all relevant requirements on product level are included.*

### **2.4 Issue of the product certificate**

If the results of the assessment of the acceptance investigation (section 2.2) and the assessment of applicant’s quality system (section 2.3) are positive, the product certificate is issued in accordance with the general regulations of the certification-body, as drawn up in accordance with the models laid down by the Building Harmonization Committee.

### **2.5 External quality control**

Once the product certificate has been issued, the certification-body carries out inspections as set out in chapter 6.

**3. PRODUCT REQUIREMENTS IN RELATION TO PERFORMANCE REQUIREMENTS BUILDING ACT AND QUALITY DECLARATION (for particleboard for use in constructions)**

**Introduction**

Wood-based sheet materials, including particleboard, are applied in building constructions. Products applied can provide a contribution to the performance(s) of a building construction. Product properties are thus of importance to be able to determine the performance(s) of a building construction.

In this chapter – following the classification of the Building Act – the requirements for relevant product properties are laid down that have a relation with performance requirements for building construction/structural components.

**3.1 SAFETY REGULATIONS**

GENERAL STRENGTH OF THE BUILDING CONSTRUCTION; BUILDING ACT, section 2.1

**3.1.1 Strength of building construction; Performance requirements, Building Act, section 2.1**

A building construction shall comply with the performance requirements as given in table 2.1.

**Acceptance investigation**

Check whether the characteristic values of the mechanical properties stated in the quality declaration, determined in accordance with NEN 6764, are correct.

*Remark:*

*Characteristic values of particleboard can be derived from NEN-EN 12369-1. Method of determination and determination of the characteristic values mentioned in this standard agree with NEN-EN 789, respectively NEN-EN 1058.*

*NEN 6764 also refers to NEN-EN 789 and NEN-EN 1058.*

*Characteristic values of particleboard, derived from NEN-EN 12369-1 are considered to be determined according to NEN 6764.*

**Product certificate**

The product certificate could include the characteristic values of the mechanical properties.

RESTRICTION OF THE DEVELOPMENT OF FIRE; BUILDING ACT, section 2.12

**3.1.2 Contribution to the propagation of fire; Performance requirements, Building Act, section 2.91**

A constructional component shall comply with the performance requirements given in table 2.91.

**Acceptance investigation**

Check whether the performances stated, determined in accordance with NEN 6065 or NEN-EN 13501-1, are correct.

*Remark:*

*The fire classes may also be derived from table 8 of NEN-EN 13986.*

**Product certificate**

The product certificate states the fire class of the sheet. This belongs at least to class 4 of the contribution to fire propagation or at least to fire class D.

RESTRICTION OF THE DEVELOPMENT OF SMOKE; BUILDING ACT, section 2.15

**3.1.3 Smoke density; Performance requirements, Building Act, section 2.125**

A structural component shall comply with the performance requirements given in table 2.125.

**Acceptance investigation**

Check whether the smoke classes stated, determined in accordance with NEN 6066 or NEN-EN 13501-1, are correct.

*Remark:*

*The smoke class may also be derived from table 8 of NEN-EN 13986.*

**Product certificate**

The product certificate states the smoke class of the smoke production.  
The smoke density does not exceed  $10 \text{ m}^{-1}$  or belongs to smoke class s2.

**3.2 HEALTH REGULATIONS**

RESTRICTION OF THE APPLICATION OF HARMFUL MATERIALS; BUILDING ACT, section 3.15

**3.2.1 Use of harmful materials; Performance requirements; Building Act, section 3.106**

Materials to be used from which poisonous or harmful substances can be released, shall comply with the performance requirements as given in table 3.106.

**Acceptance investigation**

Check whether the particleboard complies with the regulations.

**Product certificate**

The product certificate states that the particleboard complies with the regulations.

**4. OTHER PRODUCT REQUIREMENTS**

**4.1 Particleboard for structural and non-structural use in constructional applications**

Particleboard for use in constructions shall comply with the requirements of NEN-EN 13986 and corresponding standards. In addition to NEN-EN 13986 the particleboard shall comply with the requirement for the formaldehyde contents for class E1, determined in accordance with NEN-EN 120.

*Explanation: This means that particleboard, shall, among other things, comply with NEN-EN 312.*

**Acceptance investigation**

A check is carried out whether:

- the stated characteristic product properties for use in constructions of the particleboard are correct;
- the data stated in the Manufacturers' Own Declaration for non-structural use of the particleboard are correct.

**Product certificate**

The product certificate could state the characteristic product properties.

**4.2 Particleboard for non-constructional use**

Particleboard for non-constructional use shall comply with a maximum formaldehyde content of 8 mg/100 g of dry matter, determined according to NEN-EN 120.

The control frequency for the testing of the formaldehyde content of the particleboard shall be determined in consultation with the certification-body and the producer.

**Acceptance investigation**

Check whether the particleboard complies with the requirements in respect of the formaldehyde content of the sheets.

**Product certificate**

The product certificate states that the sheets comply with the requirements.

**4.3 Density**

Per type of particleboard shall be indicated in which density class the particleboard shall be classified. This class is expressed in  $\text{kg/m}^3$ , in which the class increases per  $50 \text{ kg/m}^3$ , starting at  $350 \text{ kg/m}^3$ .

**Acceptance investigation**

A check is carried out whether the density stated is correct.

**Product certificate**

The product certificate states the density for each type.

**4.4 Characteristic company information**

**4.4.1 Mechanical and/or physical properties**

Supplementary to the requirements set out in 4.1, 4.2 and 4.3, other mechanical and/or physical properties of the particleboard can be included in the product certificate. These properties of the particleboard shall, as far as possible, be determined in accordance with European standards.

The control frequency for the testing of these properties by the producer shall be determined between the certification-body and the producer and is, among other things, dependent on the properties and the application of the particleboard.



**Acceptance investigation**

A check is carried out whether the properties of the particleboard which shall be stated in the certificate, are correct.

Samples shall be drawn when required in order to verify the properties stated.

**Product certificate**

The product certificate could state the product properties.

**4.4.2 Further processing**

In the certificate further processing of the particleboard can be included, such as e.g. the result of sanding and/or profile applied to the edges.

**Acceptance investigation**

A check is carried out whether the processes stated comply.

**Product certificate**

The product certificate could mention processes.

**5. REQUIREMENTS REGARDING THE QUALITY SYSTEM**

**Internal quality control by the producer**

In the following sections requirements are formulated to which the quality system of the applicant shall comply within the scope of a product certificate.

**5.1 Responsibility**

The producer is responsible for the product and the internal quality control.

Management is responsible for the entire quality policy. Management may delegate the responsibility for maintaining the internal quality control plan to an employee, who may also have other duties within the company.

**5.2 Reporting changes**

All changes within the quality system such as procedures, internal quality plan, production methods etc. shall be reported in advance to the certification-body in writing.

**5.3 Internal quality control**

The producer shall keep an internal quality control plan, which includes details in writing of at least the following aspects:

- inspections of incoming raw materials;
- workplace instructions;
- inspection of the finished product mentioned in chapter 4;
- the control over the measuring equipment;
- registration of claims.

**5.4 Calibration**

Inspection aids shall be calibrated periodically or shall be replaced in time by measuring aids suitable for the purpose.

**5.5 Handling of claims**

The producer (holder of the product certificate) shall be able to show that there is a proper claims register and that claims regarding the particleboard produced under the product certificate are properly dealt with. Per claim shall be indicated how this claim has been analyzed and dealt with.

## **6 EXTERNAL QUALITY CONTROL BY CERTIFICATION-BODY**

### **6.1 General**

The external quality control by the certification-body has been laid down in the Regulations for Certification of this body. These Regulations are sent to the producers together with the information set.

### **6.2 External control**

The producer shall co-operate with the control activities executed by the certification-body by permitting access to the factory and, if requested, by providing all the relevant documents.

Samples are drawn for further tests by an external laboratory, when the need arises. The costs for such tests have to be paid by the producer.

### **6.3 Control frequency**

The certification-body controls at least 1x per annum whether the products comply with the technical specifications and whether the internal quality system of the producer complies with the requirements laid down in section 5.

If necessary, on advice of the Committee of Experts, above-mentioned control frequency can be adjusted on the basis of well-founded arguments.

## **7. MARKING**

Each sheet shall be clearly marked with:

- number of the product certificate;
- KOMO<sup>®</sup>-mark;
- nominal thickness in mm;
- nominal density in kg/m<sup>3</sup>;
- P-class in case of use in constructions;
- indication E1.

The production date or production code shall be put on each parcel. This can be done on a label or on the wrapping.

## **8. REQUIREMENTS FOR CERTIFICATION-BODY AND STAFF**

### **8.1 General**

The certification-body shall be accredited for the subject of this assessment directive by the Council for Accreditation. In case it concerns a new certification field the subject shall be reported to the Council for Accreditation.

**8.2 Certification staff**

Staff concerned with the certification process shall be qualified demonstrable for the execution of the activities required. In respect of the education and expert knowledge the following qualification requirements apply:

<b>Function:</b>	<b>Job description:</b>	<b>Education:</b>	<b>Expert knowledge:</b>
Certification expert	<ul style="list-style-type: none"> <li>* Executing pre-certification examination</li> <li>* Assessment of reports of inspectors</li> <li>* Complaint registration</li> </ul>	School of Higher Vocational Education	<ul style="list-style-type: none"> <li>* Auditor ISO 9001</li> <li>* Experience with the production of sheet material</li> </ul>
Inspector	<ul style="list-style-type: none"> <li>* Executing external quality control after issuing the certificate</li> </ul>	<ul style="list-style-type: none"> <li>* School of Intermediate Vocational Education</li> <li>* Training in the sheet material business</li> </ul>	<ul style="list-style-type: none"> <li>* Experience in the sheet material line of business</li> </ul>

## 9. TITLES OF DOCUMENTS REFERRED TO

Building Act: 2005	Building Act 2003 Stb. 2001, 410; Stb.2002, 203, 516, 518, 582 and Stb. 2005, 1, (368), 417 and 528 and the Ministerial Regulation Government Gazette 2002, 241; Government Gazette 2003, 101 and Government Gazette 2005, 163.
NEN 6065	Determination of the contribution to fire propagation of building products (combinations), including amendment A1: 1997
NEN 6066	Determination of the smoke production during fire of building products (combinations) including amendment A1: 1997
NEN 6764	Wood-based panels - Determination of the characteristic values of the mechanical properties, the density and the moisture resistance
NEN-EN 120	Wood-based panels - Determination of formaldehyde content – Extraction method called perforator method
NEN-EN 312	Particleboards – Specifications
NEN-EN 789	Timber structures – Test methods – Determination of mechanical properties of wood-based panels
NEN-EN 1058	Wood-based panels – Determination of characteristic values of mechanical properties and density
NEN-EN 12369-1	Wood-based panels – Characteristic values for structural design – Part 1: OSB, particleboards and fibreboards
NEN-EN 13501-1	Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests
NEN-EN 13986	Wood-based panels for use in construction – Characteristics, evaluation of conformity and marking
NEN-EN-ISO	Quality Management Systems - Requirements

**APPENDIX 1: Specimen of KOMO<sup>®</sup> product certificate (particleboard for use in construction and other applications)**

**KOMO<sup>®</sup> product certificate**

Semi-manufactured product

Name (CI)  
Address (CI)  
Telephone no. (CI)  
Telefax no. (CI)  
E-mail (CI)

Logo (CI)

**PARTICLEBOARD FOR USE IN CONSTRUCTION AND OTHER APPLICATIONS**

**Number:**  
Issued:  
Replaces:

**Producer**

**Factory at**

**Importer**

**DECLARATION OF (CI)**

This product certificate has been issued on the basis of BRL 1101 "Particleboard" in accordance with the (CI) Regulations for Certification issued by (CI).

(CI) declares that there is a legitimate confidence that the particleboard manufactured and certified by the producer continuously complies with the technical specification laid down in this product certificate, provided that it has been provided with the KOMO<sup>®</sup>-mark depicted hereunder, in a way as indicated in this product certificate.

(CI) declares that certified particleboard complies with the relevant requirements of the Building Act under above-mentioned conditions.

For the authorization by the Minister of VROM reference is made to the "Overview of quality declarations in the building industry" as given on the website of Foundation for Building Quality (SBK) [www.bouwkwaliteit.nl](http://www.bouwkwaliteit.nl).

For (CI):

.....  
Director

Users of this product certificate are advised to enquire at (CI) whether this document is still valid.

Configuration of the KOMO<sup>®</sup>-logo

This product certificate consists of ..... pages.

**Building Act  
Supports CE**

Assessed:  
quality system  
product  
Periodic control

**PARTICLEBOARD FOR USE IN CONSTRUCTION AND OTHER APPLICATIONS**

<b>BUILDING ACT ENTRY</b>				
<b>No.</b>	<b>section</b>	<b>limiting value/ method of determination</b>	<b>performances according to quality declaration</b>	<b>remarks in connection with its use</b>
<b>2.1</b>	General strength in situation of use		Not applicable	Performance has not been assessed; to be determined by design engineer
<b>2.12</b>	Restriction development of fire	Class 1, 2, 3 or 4, according to NEN 6065, or at least fire class D according to NEN-EN 13501-1		Thickness $\geq 9$ mm density $\geq 600$ kg/m <sup>3</sup> , class D
<b>2.15</b>	Restriction development of smoke	Smoke density $\leq 10$ m <sup>-1</sup> , $\leq 5,4$ m <sup>-1</sup> or $\leq 2,2$ m <sup>-1</sup> according to NEN 6066, or at least smoke class s2 according to NEN-EN 13501-1		Thickness $\geq 9$ mm density $\geq 600$ kg/m <sup>3</sup> smoke class s2
<b>3.15</b>	Restriction use of harmful materials	According to the regulations of Ministerial Regulations		Formaldehyde class E1 determined according to NEN-EN 120

**1. TECHNICAL SPECIFICATION**

**1.1 Subject**

Particleboard for use in construction.  
Particleboard for other applications.

**1.2 Marking**

**1.2.1** Each sheet of particleboard is marked with the KOMO<sup>®</sup>-mark

The execution of this mark is as follows:

- KOMO<sup>®</sup>-mark;
- no. «Certificate number»;
- nominal thickness in mm;
- nominal density in kg/m<sup>3</sup>;
- indication P-class;
- indication E1.

Location of the mark: clearly visible on each sheet of particleboard supplied.

**1.3 Product specification**

The product specification contains at least the CE-mark, thickness, density, indication P-class and the indication E1.

**2. PRODUCT PROPERTIES**

**2.1 SAFETY PERFORMANCES**

GENERAL STRENGTH OF THE BUILDING CONSTRUCTION; BUILDING ACT- section 2.1

**2.1.1 Strength of building construction; Building Act, section 2.1**

The characteristic values of the mechanical properties of the particleboard are determined. The particleboard can thus also be applied as a constructive sheet.

RESTRICTION OF THE DEVELOPMENT OF FIRE; BUILDING ACT,-section 2.12

**2.1.2 Contribution to the propagation of fire; Building Act, section 2.91**

The fire class of the particleboard belongs, determined according to NEN-EN 13501-1, to smoke class D for particleboard with a thickness of 9 mm and thicker and a density of  $\geq 600 \text{ kg/m}^3$  and smoke class F for other sheets.

RESTRICTION OF THE DEVELOPMENT OF SMOKE; BUILDING ACT, section 2.15

**2.1.3 Smoke density; Building Act, section 2.125**

The smoke class of the particleboard, determined according to NEN-EN 13501-1 belongs to smoke class s2 for particleboard with a thickness of 9 mm and thicker and a density of  $\geq 600 \text{ kg/m}^3$ . The smoke class for other sheets has not be determined.

**2.2 PRODUCT PROPERTIES FROM THE HEALT POINT OF VIEW**

RESTRICTION OF USE OF HARMFUL MATERIALS; BUILDING ACT- section 3.15

**2.2.1 Use of harmful materials; Building Act, section 3.106**

The formaldehyde contents of the sheets, determined in accordance with NEN-EN 120, comply with the requirements for class E1.

**3 OTHER PRODUCT PROPERTIES**

**4 SUGGESTIONS FOR THE USER**

.....

**APPENDICES**

..... (details when required)

**APPENDIX 2: Specimen of KOMO® product certificate (particleboard for non-constructional uses)**

Semi-manufactured product

**KOMO® product certificate**

Name (CI)

Logo (CI)

Address (CI)

Telephone no. (CI)

Telefax number (CI)

E-mail (CI)

**PARTICLEBOARD FOR NON CONSTRUCTIONAL USES**

**Number**

Issued:

Replaces:

**Producer**

**Factory in**

**Importer**

**DECLARATION OF (CI)**

This product certificate has been issued on the basis of BRL 1101 "Particleboard" in accordance with the (CI) Regulations for Certification issued by (CI).

(CI) declares that there is a legitimate confidence that the particleboard manufactured by and certified by the producer continuously complies with the technical specification laid down in this product certificate, provided that it has been provided with the KOMO®-mark depicted hereunder, in a way as indicated in this product certificate.

For (CI):

.....  
Director

Users of this product certificate are advised to enquire at (CI) whether this document is still valid.

This product certificate consists of ..... pages.

Assessed:  
quality system  
product  
Periodic control



## **1. PRODUCT SPECIFICATION**

### **1.1.1 Subject**

Particleboard for constructional uses.

### **1.2 Marking**

Each sheet of particleboard is marked with the KOMO<sup>®</sup>-mark  
The execution of this mark is as follows:

- KOMO<sup>®</sup>-mark or logo;
- no «Certificate number»;
- nominal thickness in mm;
- nominal density in kg/m<sup>3</sup>;
- indication E1.

Location of the mark: clearly visible on each sheet of particleboard supplied.

### **1.3 Product specification**

The product specification contains at least the thickness, the density and the indication E1.  
finish.

## **2 OTHER PRODUCT PROPERTIES**

## **3 SUGGESTIONS FOR THE USER**

.....

### **APPENDICES**

..... (details when required)

Adoption, acceptance and binding declaration

Adopted by the SKH Board of Experts on 20-05-2016.

Accepted by the KOMO Quality and Assessment Board of the KOMO Foundation on 09-09-2016.

This modification sheet was declared binding by SKH on 09-09-2016.

### **Validity of quality declarations**

This modification sheet was adopted in addition to AD 1101 Particleboard ” on 25-05-2005 and replaces the accompanying modification sheet dated 31-12-2014. In any case, the quality declarations issued on the basis of that version of the assessment directive become invalid on 10-09/-2016.

### **Description of the modification**

This modification sheet records the changes adopted with regards to the model quality declarations, the paragraph regarding the CE marking, the reference to the KOMO website for the requirements regarding the quality declarations to be issued, the initial inspection, the external inspection, the table with the requirements for product characteristics as it must be included in the attest and the table with non-essential characteristics as can be included in the quality declaration. The modifications made in the context of the 2012 Buildings Decree have also been included. This concerns chapter 3 (Performance requirements, Buildings Decree, initial inspection and quality declaration) and chapter 9 (list of referenced documents). Finally, the texts regarding the accreditation and model certificate have been removed from the AD.

#### *General*

Replace the title of the AD by KOMO®Assessment Guideline for the KOMO® quality declaration for Paricleboard for (structural) (non-structural) architectural and non-architectural applications and for the KOMO® attest for building components containing particleboard for (structural) (non-structural) applications.

Replace the term “product certificate” by “KOMO® quality declaration” c.q in KOMO® quality declaration and KOMO®attest”.

*Replace paragraph. 1.3 by the text below:*

### **1.3 Relationship with the European Construction Products Regulation (CPR, EU 305/2011)**

The harmonised European standard NEN-EN 13986 applies to some of the products that fall within the scope of this assessment directive; this concerns particleboard for permanent application in buildings and bridges<sup>1</sup>.

<sup>1</sup> NEN-EN 13986 does not apply to non-architectural applications.

*Add paragraph 1.4 below*

### **1.4 Requirements to be set for assessment institutes**

#### **1.4.1 Research carried out for essential characteristics**

The essential characteristics set out in Annex ZA of the harmonised European standard shall be based on the values as recorded in the Declaration of Performance of the producer concerned.

#### 1.4.2 Research carried out for other characteristics

With regards to the other characteristics, reports from test facilities or laboratories shall be submitted by an applicant (producer/supplier) as part of an external audit to demonstrate compliance with the requirements of this assessment directive. It will have to be demonstrated that these reports were drawn up by a body that meets the applicable accreditation standard for the subject in question, namely:

- NEN-EN-ISO/IEC 17020 for inspection bodies
- NEN-EN-ISO/IEC 17021-1 for certification bodies that certify systems
- NEN-EN-ISO/IEC 17025 for laboratories
- NEN-EN-ISO/IEC 17065 for certification bodies that certify products

An institution is deemed to meet these criteria if an accreditation certificate can be submitted for the subject in question, issued by the Council for Accreditation (Raad voor Accreditatie, RvA) or an accreditation body with which the RvA has concluded an agreement of mutual acceptance. If no accreditation certificate can be submitted, the certification body itself shall assess whether the accreditation criteria have been met.

*Add paragraph 1.5 below:*

#### 1.5.2 Quality declaration

On the basis of the KOMO system which applies to this assessment directive, the following quality declarations are issued:

- KOMO® quality declaration.  
The statements in this quality declaration are based on chapters 4, 5 and 7 of this assessment directive.
- KOMO® attest, for the performance of the product in its application and in the building component in relation to the 2012 Buildings Decree:  
The statements in this attest are based on chapter 3 of this assessment directive whereby the manufacturer's processing instructions are taken into account.  
The KOMO® attest may *not* include any references to the KOMO® quality declaration.  
The KOMO® Foundation's website ([www.komo.com](http://www.komo.com)) contains the model of the quality declarations that are applicable for this assessment directive. The quality declarations to be issued must correspond to this.

*Replace paragraph . 2.2 by the text below::*

## 2.2 Initial inspection

### 2.2.1 Initial inspection for the KOMO® attest

For the purpose of acquiring a KOMO® attest, the certification body shall carry out an assessment. The initial inspection includes:

- It is assessed whether the declared values of the essential characteristics (as stated in the declaration of performance provided by the applicant) are at least equivalent to the relevant conditions as laid down in chapter 3 of this assessment guideline.
- The certification body assesses to what degree the other (Buildings Decree-related) product characteristics are at least equivalent to the relevant conditions as laid down in chapter 3 of this assessment directive.
- Determination of performance in the application.

### 2.2.2 Initial inspection for the KOMO® quality declaration

In order to obtain a KOMO® quality declaration, the certification body shall carry out an assessment. The initial inspection includes:

- Verification of documents provided or to be provided by the applicant to verify compliance with the requirements laid down in this assessment directive.
- Request the declaration of performance drawn up by the applicant and verify whether the essential characteristics declared therein comply with the limit values set out in this assessment directive.
- Determination of the other product characteristics as set out in this assessment directive insofar as they are not essential characteristics as listed in Annex ZA of the

relevant harmonised European standard(s), also checking whether these characteristics comply with the requirements of this assessment directive.

Replace paragraph 2.3 by the text below:

## **2.3 Assessment of the quality system**

### **2.3.1 Assessment of the quality system for the KOMO® attest**

In relation to the product characteristics (among them the essential characteristics recorded in the Declaration of Performance drawn up within the framework of the European Construction Products Regulation) no assessment of the quality system takes place for the KOMO® certificate. For the purpose of acquiring the KOMO® attest, the certification body assesses the presence and the operation of the complaints procedure with regards to the attest.

### **2.3.2 Assessment of the quality system for the KOMO® quality declaration**

#### **2.3.2.1 1 For essential characteristics**

In relation to the essential characteristics (as recorded in the declaration of performance drawn up within the framework of the European Construction Products Regulation) no assessment of the quality system and/or inspection of samples takes place for the KOMO® quality declaration. Quality assurance is covered by the Factory Production Control (FPC) as defined in Annex ZA of the harmonised European standard for essential characteristics.

#### **2.3.2.2 For the purpose of other product characteristics**

In order to obtain the KOMO® quality declaration in relation to the other product characteristics, the certification body shall conduct an assessment. The initial inspection includes:

- Assessment of the production process
- Assessment of the quality system and the IQC plan
- Testing of the presence and operation of the other required procedures

The certification body shall test the quality system and the corresponding IQC scheme. It must be established to what extent the quality system complies with the requirements as laid down in chapters 5 and 7 of this assessment directive.

#### Comment:

*Companies that have been certified on the basis of NEN-EN-ISO 9001 are deemed to comply with the requirements of chapter 5 provided that all relevant requirements at product level are included in the quality system.*

Replace paragraph. 2.4 for text below::

## **2.4 Issuing the KOMO® quality declaration and KOMO® attestation**

Quality declaration and the KOMO® attestation are issued according tot the general regulations of the certification institute, after the initial audit (paragraph 2.2) and the assessment of the quality system (paragraph 2.3.) of the applicant, have been concluded positively.

Replace chapter 3 by the text below:

### 3. BUILDINGS DEGREE PERFORMANCE REQUIREMENTS (only for architectural applications)

#### Connection table for "new constructions"

Sections of the Buildings Decree considered	Section	Article	Paragraph	House	Residential building	Other Building	Possibly further reference path
General strength of the construction (only for constructional applications)	2.1	2.2	1-2 1	X	X	X	NEN-EN 1990 (incl. national annex) NEN-EN 1991-1-1/3/4 (incl. national annex) NEN-EN-1995-1-1 (incl. national annex)
		2.3		X	X	X	
		2.4		X	X	X	
		2.5b		X	X	X	
Reaction to fire	2.9	2.67	1	X	X	-	NEN-EN 13501-1 Ministerial regulation
			1-2	-	-	X	
		2.68	1-5	X	X	X	
		2.69	1-2	X	X	X	
		2.72		X	X	X	
Limiting the presence of harmful substances and ionising radiation	3.9	3.63	1	X	X	X	Ministerial regulation

#### Comments

- The above connection table shows the Buildings Decree requirements for "new constructions". PARTICLEBOARD which meets the requirements for "new constructions" also meets the requirements for "renovation". From this point of view, the requirements for "renovation" have not been elaborated in more detail.
- In accordance with the connection table per BD section, the relevant BD articles and paragraphs are detailed below. Unless otherwise specified, listed BD articles/paragraphs apply to all (three) types of construction (houses, residential building, and other buildings).
- For the relevant paragraphs of an article concerning a user function that falls under "other building", the Buildings Decree must be consulted.

### 3.1 TECHNICAL BUILDING REGULATIONS FROM THE PERSPECTIVE OF SAFETY

GENERAL STRENGTH OF THE CONSTRUCTION; BD section 2.1 (OPTIONAL)

#### 3.1.1 Strength of construction: Performance requirements, BD articles 2.2, 2.3, 2.4 and 2.5b

Constructions in which PARTICLEBOARD is used must fulfil the performance requirements as indicated in BD articles 2.2 and 2.3, paragraphs 1-2, BD article 2.4, paragraph 1 and BD article 2.5b.

#### Limit Value

A structure shall not fail during its design life under fundamental or extraordinary load combinations as defined in NEN-EN 1990.

#### Method of determination

It is assessed whether the declared (method of calculating the) performance of building components containing PARTICLEBOARD are correct in the load cases and load combinations determined in accordance with the Eurocodes and/or NEN standard listed in Table 1. This will include an assessment of the applications for which PARTICLEBOARD is suitable.

Table 1

Type of construction	Loads in accordance with	Performance determined in accordance with
Wood construction	NEN-EN 1990* and NEN-EN 1991-1-1/3/4*	NEN-EN 1995-1-1*

\* including national annex

#### **Initial inspection**

The certification body assesses examples of applications to determine whether the performance of building elements containing particleboard complies with the limit values listed in the Buildings Decree.

#### **KOMO® certificate**

The KOMO® certificate can indicate under which conditions building components containing particleboard meet the requirements with regards to the strength of the construction as stated in the Buildings Decree.

Due to the absence of a ministerial decree on further regulations with regards to the load on construction works due to earthquakes as a result of gas production in the Dutch province of Groningen, no ruling will be made on BD article 2.5b. This article has been included for information purposes in the context of the duty of care and alert.

LIMITING THE DEVELOPMENT OF FIRE AND SMOKE; BD section. 2.9

### **3.1.2 Internal surface; BD article 2.67**

One side of a building component adjacent to the indoor air must meet the performance requirements as listed in BD article 2.67, paragraph 1 for houses/residential buildings and other buildings (excluding other uses) and paragraphs 1-2 for other buildings with other uses.

#### **Limit Value**

The classes are at least up to fire class D and at least up to smoke class s2.

#### **Method of determination**

The fire and smoke classes are to be determined in accordance with NEN-EN 13501-1.

#### **Initial inspection**

The certification body shall deduce from the performance declaration whether the performance with regards to the fire and smoke classes of the side of building components containing particleboard which are adjacent to indoor air meet the requirements regarding fire and smoke classes listed in the Buildings Decree.

#### **KOMO® attest**

The KOMO® attest states under which conditions building components containing particleboard meet the requirements stated in the Buildings Decree for the side adjacent to the indoor air with regards to the fire and smoke class.

### **3.1.3 Walkable surface; BD article 2.69**

The upper side of a floor, staircase or ramp intended for persons adjacent to the indoor air shall meet the performance requirements as indicated in BD article 2.69, paragraphs 1-2.

#### **Limit Value**

The classes are at least fire class D<sub>fl</sub> and smoke class s1<sub>fl</sub>.

#### **Method of determination**

The fire and smoke classes are to be determined in accordance with NEN-EN 13501-1.

#### **Initial inspection**

The certification body deduces from the performance declaration whether the performance with regards to the fire and smoke class of the upper side of floors, stairs or ramps intended for persons and containing particleboard which are adjacent to the indoor air meet the requirements with regards to the fire and smoke class stated in the Buildings Decree.

#### **KOMO® attest**

The KOMO® attest indicates under which conditions floors, stairs or ramps intended for persons and containing particleboard comply with the requirements for the upper side which is adjacent to the indoor air with regards to the fire and smoke class stated in the Buildings Decree.

### 3.1.4 Structural component; BD article 2.72

In order to limit the development of fire and smoke, structural components must meet the performance requirements as listed in BD article 2.72.

#### Limit Value

The limit values may be laid down by Ministerial Regulation.

#### Method of determination

The methods of determination may be laid down by Ministerial Regulation.

#### KOMO® attest

No statements are made in the KOMO® attest. This article has been included for information purposes in the context of the duty of care and alert.

## 3.2 TECHNICAL BUILDING REGULATIONS FROM THE PERSPECTIVE OF HEALTH

REDUCTION OF THE PRESENCE OF HARMFUL SUBSTANCES AND IONISING RADIATION; BD section 3.9 (OPTIONAL)

### 3.2.1 Materials; BD article 3.63

Materials from which toxic or irritating substances or ionising radiation may be released must meet the performance requirements as indicated in BD article 3.63, paragraph 1.

#### Limit Value

The limit values may be laid down by Ministerial Regulation.

#### Method of determination

The methods of determination may be laid down by Ministerial Regulation.

#### KOMO® certificate

No statements are made in the KOMO® certificate. This article has been included for information purposes in the context of the duty of care and alert.

Replace paragraph. 4.1 by the text below:

## 4.1 Particleboard for structural and non-structural applications

#### limit value

The particleboard shall comply with the requirement for the formaldehyde contents for class E1, according to EN 120

#### Method of determination

The certification body uses the Declaration of performance of the applicant if the stated class for formaldehyde emission is E1.

“In addition to the minimum requirements, ..... determined in accordance with European standards.”

*By the text:*

“In addition to the minimum requirements set for this under 4.2 and 4.3, other mechanical and/or physical characteristics of the particleboard can be included in the product certificate. To the extent possible, these characteristics of the particleboard must be determined in accordance with European standards. The mechanical properties should not relate to the essential characteristics as described in the NEN-EN 13986.”

*Replace paragraph 6.2 and 6.3 by the text below:*

## **6.2 External audit**

### **6.2.1 External audit for the KOMO® certificate**

The certification body will carry out a reassessment of the performance in the application with regards to the certificate once every 5 years or as much earlier as necessary and an audit of the complaints registration will take place.

*Add paragraph 6.4:*

### **6.4 Sanctions policy**

The sanctions policy (the measures to be taken by the certification body in the event of shortcomings) shall be laid down in the regulations of the certification body or in a document drawn up separately for this purpose.

### **6.2.2 External audit for the KOMO® quality declaration**

#### **6.2.2.1 For essential characteristics**

In relation to the essential characteristics (as laid down in the performance declaration drawn up within the framework of the European Construction Products Regulation) no assessment of the quality system and/or inspection of samples takes place for the KOMO® quality declaration. Quality assurance is covered by the Factory Production Control (FPC) as defined in Annex ZA of the harmonised European standard for essential characteristics.

#### **6.2.2.2 For the purpose of other product characteristics**

In relation to the other product characteristics, the certification body will carry out an unannounced audit of the quality system, the production process and the product characteristics once a year, investigating whether the requirements in this assessment directive are still being met.

If necessary, the frequency of inspections can be adjusted on the basis of arguments following the recommendation of the Board of Experts.



## 9. List of referenced documents

Buildings Decree 2012	Stb. (Dutch Bulletin of Acts and Decrees) 2011 416, 676; Stb. 2012, 125, 256, 441, 643; Stb. 2013, 75, 244, 462; Stb. 2014, 51, 211, 232, 233; 333, 342, 358, 539; Stb 2015, 92, 249, 425 and Ministerial Regulations Stcrt. (Dutch Government Gazette) 2011, 23914; Stcrt. 2012, 13245 Stcrt. 2013, 5457, 16919; Stcrt. 2014, 4057, 34076, 37003; Stcrt. 2015, 17338, 45221
CPR	Construction products regulation EU 305/2011
NEN-EN 310:1993	Wood-based panels– Determination of the modulus of elasticity on flexion and of the bending strength
NEN-EN 789:2004	Wooden constructions. Test methods. Determination of the mechanical properties of wood-based panels
NEN-EN 1058:2009	Wood-based panels- Determination of the characteristic 5-percent values and characteristic average values
NEN-EN 1990+A1+A1/ C2:2011+NB:2011	Eurocode - Principles of Structural Design
NEN-EN 1991-1-1+C1:2011+NB:2011	Eurocode 1 – Design bases and loads on constructions – Part 1: Design bases; incl. National annex
NEN-EN 1991-1-3+C1:2011+NB:2011	Eurocode 1: Loads on structures - Part 1-3: General loads - Snow loads; including National annex
NEN-EN 1991-1-4+A1+C2:2011+NB:2011	Eurocode 1: Loads on structures - Part 1-4: General loads - Wind loads; including National annex
NEN-EN 1995-1-1+C1+A1:2011+NB:2011	Eurocode 5: Design and calculation of wood constructions - Part 1-1: General - Common rules and regulations for buildings; including National annex
NEN-EN 13501-1:2007+A1:2009	Fire classification of construction products and parts - Part 1: Classification according to the results of reaction to fire tests
NEN-EN 12369-1:2001	Wood-based panels- Characteristic values for constructional designs - Part 1: OSB particleboard, chipboard and fibre board.
NEN-EN 13986:2004	Wood-based panels for use in construction - Characteristics, determination of conformity and brands
NEN-EN-ISO 9001:2008/C1:2009	Quality management systems - Requirements
NEN-EN-ISO/IEC 1720:2012	Conformity assessment - General criteria for the operation of different types of bodies performing inspections
NEN-EN-ISO/IEC 17021:2011	Conformity assessment - Requirements for bodies performing audits and certification of management systems
NEN-EN-ISO/IEC 17021:2011	General requirements for the competence of testing and calibration laboratories
NEN-EN-ISO/IEC 17025:2005/C1:2007	Conformity assessment - Requirements for certification bodies issuing certificates for products, processes and services
NEN-EN-ISO/IEC 17065:2012	

Replace annex 1 by the table below:

**Annex 1: Table with required product characteristics as to be included in the certificate**

Characteristic	Method of determination	AD Requirement
Characteristic values of the mechanical properties*	NEN-EN 310	No requirement
Limitation of the development of fire and smoke	NEN-EN 13501-1 or derived from table 8 of NEN-EN 13986	Inner surface fire class at least D and smoke class at least s2.  Outer surface fire class at least D.  Walkable surface fire class at least D <sub>fl</sub> and smoke class at least s1 <sub>fl</sub> .
Limitation of use of harmful materials	NEN-EN 13986 Annex B	At least E1

\* = optional

Remove annex 2.