

# DIN EN 13986:2015-06 (E)

## Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking (includes Amendment A1:2015)

---

<b>Contents</b>		<b>Page</b>
Foreword .....		4
1	Scope .....	5
2	Normative references .....	5
3	Terms and definitions .....	8
4	Performance characteristics required for wood-based panels for use in construction .....	17
4.1	Wood-based panels for internal use as structural components in dry conditions .....	17
4.2	Wood-based panels for internal use as structural components in humid conditions .....	18
4.3	Wood-based panels for external use as structural components .....	19
4.4	Wood-based panels for internal use as non-structural components in dry conditions .....	20
4.5	Wood-based panels for internal use as non-structural components in humid conditions ..	20
4.6	Wood-based panels for external use as non-structural components .....	21
4.7	Wood-based panels for use as structural floor and roof decking on joists and as structural wall sheathing on studs .....	22
4.8	Other dangerous substances .....	24
5	Determination of the performance characteristics .....	24
5.1	Bending strength .....	24
5.2	Bending stiffness (Modulus of elasticity) .....	24
5.3	Bonding quality .....	24
5.4	Internal bond (Tensile strength) .....	24
5.5	Durability (Swelling in thickness) .....	24
5.6	Durability (Moisture resistance) .....	25
5.6.1	OSB .....	25
5.6.2	Particleboard .....	25
5.6.3	Cement-bonded particleboard .....	25
5.6.4	Fibreboard .....	25
5.6.5	Plywood, LVL and solid wood panels .....	26
5.7	Release of formaldehyde .....	26
5.8	Reaction to fire .....	26
5.9	Water vapour permeability .....	29
5.10	Airborne sound insulation .....	29
5.11	Sound absorption .....	29
5.12	Thermal conductivity .....	30
5.13	Strength and stiffness for structural use .....	30
5.14	Impact resistance for structural use .....	30
5.14.1	Floor decking on joists .....	30
5.14.2	Roof decking on joists .....	30
5.14.3	Wall sheathing on studs .....	30
5.15	Strength and stiffness under point load for structural use .....	31
5.15.1	Floor decking on joists .....	31
5.15.2	Roof decking on joists .....	31
5.15.3	Racking resistance (wall sheathing on studs) .....	31
5.16	Mechanical durability .....	31
5.17	Biological durability .....	31
5.18	Content of pentachlorophenol .....	31
5.19	Embedment strength .....	32
5.20	Air permeability .....	32

<b>6</b>	<b>Assessment and verification of constancy of performance - AVCP</b> .....	<b>32</b>
6.1	General .....	32
6.2	Type testing .....	32
6.2.1	General .....	32
6.2.2	Test samples, testing and compliance criteria .....	33
6.2.3	Test reports .....	35
6.2.4	Shared other party results .....	35
6.2.5	Cascading determination of the product type results .....	35
6.3	Factory production control (FPC) .....	37
6.3.1	General .....	37
6.3.2	Requirements .....	37
6.3.3	Product specific requirements .....	41
6.3.4	Initial inspection of factory and of FPC .....	41
6.3.5	Continuous surveillance of FPC .....	42
6.3.6	Procedure for modifications .....	42
6.3.7	One-off products, pre-production products (e.g. prototypes) and products produced in very low quantity .....	42
<b>7</b>	<b>Marking</b> .....	<b>43</b>
	<b>Annex A (normative) Technical classes for wood-based panels</b> .....	<b>46</b>
	<b>Annex B (normative) Formaldehyde classes</b> .....	<b>50</b>
	<b>Annex ZA (informative) Clauses of this European Standard addressing the provisions of the EU Construction Products Regulation</b> .....	<b>52</b>
	<b>ZA.1 Scope and relevant characteristics</b> .....	<b>52</b>
	<b>ZA.2 Procedures for Assessment and Verification of the Constancy of Performance (AVCP) of wood-based panels</b> .....	<b>56</b>
	<b>ZA.2.1 Systems of AVCP</b> .....	<b>56</b>
	<b>ZA.2.2 Declaration of performance (DoP)</b> .....	<b>59</b>
	<b>ZA.2.2.1 General</b> .....	<b>59</b>
	<b>ZA.2.2.2 Content</b> .....	<b>60</b>
	<b>ZA.3 CE marking and labelling</b> .....	<b>61</b>
	<b>ZA.3.1 CE marking</b> .....	<b>61</b>
	<b>ZA.3.2 Labelling</b> .....	<b>63</b>
	<b>Bibliography</b> .....	<b>68</b>