

DIN EN 408:2012-10 (E)

Timber structures - Structural timber and glued laminated timber - Determination of some physical and mechanical properties (includes Amendment A1:2012)

Contents		Page
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Symbols and abbreviations	6
5	Determination of dimensions of test pieces	8
6	Determination of moisture content of test pieces	8
7	Determination of density of test pieces	8
8	Conditioning of test pieces	8
9	Determination of local modulus of elasticity in bending	9
9.1	Test piece	9
9.2	Procedure	9
9.3	Expression of results	10
10	Determination of global modulus of elasticity in bending	11
10.1	Test piece	11
10.2	Procedure	11
10.3	Expression of results	12
11	Determination of the shear modulus	13
11.1	Torsion method	13
11.1.1	Test piece	13
11.1.2	Procedure	13
11.1.3	Expression of results	16
11.2	Shear field test method	17
11.2.1	Test piece	17
11.2.2	Procedure	17
11.2.3	Expression of results	19
12	Determination of modulus of elasticity in tension parallel to the grain	19
12.1	Test piece	19
12.2	Procedure	19
12.3	Expression of results	20
13	Determination of tension strength parallel to the grain	20
13.1	Test piece	20
13.2	Procedure	21
13.3	Expression of results	21
14	Determination of modulus of elasticity in compression parallel to the grain	21

14.1	Test piece	21
14.2	Procedure	22
14.3	Expression of results	22
15	Determination of compression strength parallel to grain	22
15.1	Test piece	22
15.2	Procedure	22
15.3	Expression of results	23
16	Determination of tension and compression strengths perpendicular to the grain	23
16.1	Requirements for test pieces	23
16.1.1	Fabrication	23
16.1.2	Surface preparation	23
16.2	Procedure	24
16.3	Expression of results	27
16.3.1	Compression perpendicular to the grain	27
16.3.2	Tension perpendicular to the grain	27
17	Determination of modulus of elasticity perpendicular to the grain	27
17.1	Requirements for test pieces	27
17.2	Procedure	27
17.3	Expression of results	28
17.3.1	Compression perpendicular to the grain	28
17.3.2	Tension perpendicular to the grain	28
18	Determination of shear strength parallel to the grain	29
18.1	Requirements for test pieces	29
18.1.1	Fabrication	29
18.1.2	Surface preparation	29
18.2	Procedure	30
18.3	Expression of results	31
19	Bending strength parallel to grain	32
19.1	Test piece	32
19.2	Procedure	32
19.3	Expression of results	33
20	Test report	34
20.1	General	34
20.2	Test piece	34
20.3	Test method	34
20.4	Test results	34
Annex A (informative) Example of compression perpendicular to grain test arrangement		35
Annex B (informative) Example of tension perpendicular to grain test arrangement with rigid fixings		37
Bibliography		38