

DIN EN 384:2010-08 (E)

Structural timber - Determination of characteristic values of mechanical properties and density

Contents		Page
Foreword		3
Introduction		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols and abbreviations	6
5	Mechanical properties determined from full-size specimens	7
5.1	Sampling	7
5.2	Testing	8
5.3	Analysis of data	8
5.3.1	Determination of sample 5-percentile for strength	8
5.3.2	Determination of the sample mean of modulus of elasticity	9
5.3.3	Reference conditions	9
5.3.4	Adjustment factors	9
5.4	Strength properties	10
5.5	Modulus of elasticity	11
6	Alternative methods of determining mechanical properties	12
6.1	Bending strength and modulus of elasticity determined from small, clear hardwood specimens	12
6.2	Other mechanical properties for hardwoods and softwoods	12
6.2.1	General	12
6.2.2	Tension strength parallel to grain and compression strength parallel to grain and shear strength	12
6.2.3	Tension perpendicular to grain strength	12
6.2.4	Compression perpendicular to grain strength	12
6.2.5	Characteristic fifth percentile modulus of elasticity parallel to grain	13
6.2.6	Mean modulus of elasticity perpendicular to grain	13
6.2.7	Shear modulus	13
7	Mechanical properties for other grades of hardwood and softwood	13
8	Density	13
9	Acceptance procedure for verification of a lot	14
9.1	General	14
9.2	Verification of mean values (e.g. mean modulus of elasticity)	14
9.2.1	Method keeping the consumer's risk at 10 %	14
9.2.2	Alternative method limiting the sample size for large COVs	14
9.3	Verification of 5-percentile values (e.g. characteristic strength)	15
9.3.1	Method with consumers risk equal to 10 %	15
9.3.2	Alternative method limiting the sample size for large COVs	15
10	Report	16
Annex A (normative) Form for declaring characteristic values		17
Bibliography		19