

DIN EN 1995-2 :2006-02 (E)

Eurocode_5: Design of timber structures_ - Part_2: Bridges

Contents

Foreword	3
Section 1 General	6
1.1 Scope	6
1.1.1 Scope of EN 1990	6
1.1.2 Scope of EN 1995-2	6
1.2 Normative references	6
1.3 Assumptions	7
1.4 Distinction between principles and application rules	7
1.5 Definitions	7
1.5.1 General	7
1.5.2 Additional terms and definitions used in this present standard	7
1.6 Symbols used in EN 1995-2	9
Section 2 Basis of design	11
2.1 Basic requirements	11
2.2 Principles of limit state design	11
2.3 Basic variables	11
2.3.1 Actions and environmental influences	11
2.4 Verification by the partial factor method	11
2.4.1 Design value of material property	11
Section 3 Material properties	13
Section 4 Durability	14
4.1 Timber	14
4.2 Resistance to corrosion	14
4.3 Protection of timber decks from water by sealing	14
Section 5 Basis of structural analysis	15
5.1 Laminated deck plates	15
5.1.1 General	15
5.1.2 Concentrated vertical loads	15
5.1.3 Simplified analysis	16
5.2 Composite members	17
5.3 Timber-concrete composite members	17
Section 6 Ultimate limit states	18
6.1 Deck plates	18
6.1.1 System strength	18
6.1.2 Stress-laminated deck plates	19
6.2 Fatigue	21
Section 7 Serviceability limit states	22
7.1 General	22
7.2 Limiting values for deflections	22
7.3 Vibrations	22
7.3.1 Vibrations caused by pedestrians	22
7.3.2 Vibrations caused by wind	22
Section 8 Connections	23
8.1 General	23
8.2 Timber-concrete connections in composite beams	23
8.2.1 Laterally loaded dowel-type fasteners	23
8.2.2 Grooved connections	23
Section 9 Structural detailing and control	24
Annex A (informative) Fatigue verification	25
A.1 General	25
A.2 Fatigue loading	25
A.3 Fatigue verification	26
Annex B (informative) Vibrations caused by pedestrians	28
B.1 General	28
B.2 Vertical vibrations	28
B.3 Horizontal vibrations	28