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Composite Structures according to Eurocode 4
1. Auflage, Englisch

DETAILLIERTES INHALTSVERZEICHNIS

Contents

Chapters
List of examples
Preface

A Creep and shrinkage

A1 Determination of creep and shrinkage values

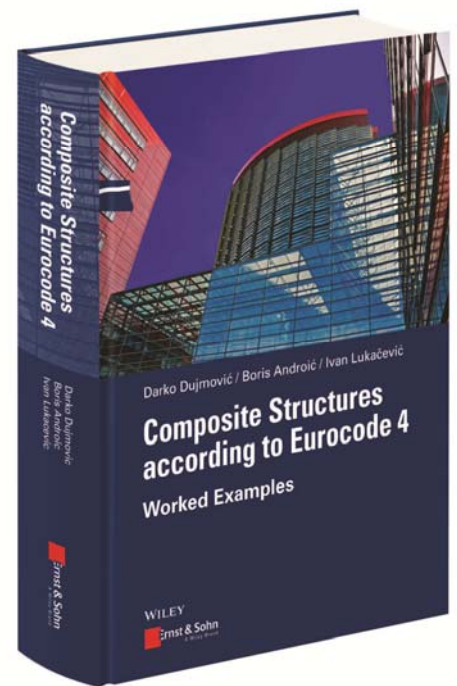
1. Purpose of example
2. Cross-section
3. Input data
4. Creep coefficients
 - 4.1 Determination of final creep coefficient
 - 4.2 Determination of creep coefficient at time $t = 90$ days
5. Shrinkage strains
 - 5.1 Determination of final value of shrinkage strain
 - 5.2 Determination of shrinkage strain at time $t = 90$ days
6. Commentary

A2 Determination of creep and shrinkage values on example of composite highway bridge

1. Purpose of example
2. Cross-section
3. Input data
4. Calculation of modular ratio n_L for permanent action constant in time
 - 4.1 Calculation of modular ratio n_L for permanent action constant in time at time $t = \infty$
 - 4.2 Calculation of modular ratio n_L for permanent action constant in time at opening to traffic $t = 63$ days
5. Calculation of modular ratio n_L for shrinkage and shrinkage strains
 - 5.1 Calculation of modular ratio n_L for shrinkage and shrinkage strains at time $t = \infty$
 - 5.2 Calculation of modular ratio n_L for shrinkage and shrinkage strains at opening to traffic $t = 63$ days
6. Primary effects of shrinkage
7. Commentary

A3 Determination of creep and shrinkage values and their effects at calculation of bending moments

1. Purpose of example
2. Static system, cross-section and actions
3. Input data
4. Creep and shrinkage
 - 4.1 Determination of final creep coefficient
 - 4.2 Determination of shrinkage strain



- 5. Effective width of concrete flange
- 5.1 Cross-section at mid-span
- 5.2 Cross-section at support
- 6. Geometrical properties of composite cross-section at mid-span
- 7. Geometrical properties of composite cross-section at support
- 8. Effects of creep and shrinkage
- 8.1 Design bending moment for internal support
- 8.2 Secondary effects of shrinkage
- 9. Commentary

B Composite beams

B1 Effective width of concrete flange

- 1. Purpose of example
- 2. Static system and cross-section
- 3. Calculation of effective width of concrete flange
- 3.1 Support A
- 3.2 Mid-region AB
- 3.3 Support region BC
- 3.4 Mid-span region CD
- 3.5 Support region DE
- 4. Recapitulation of results
- 5. Commentary

B2 Composite beam – arrangement of shear connectors in solid slab

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Ultimate limit state
- 4.1 Design values of combined actions and design values of effects of actions
- 4.2 Effective width of concrete flange
- 4.3 Plastic resistance moment of composite cross-section
- 4.4 Vertical shear resistance
- 4.5 Check of resistance of headed stud connectors
- 4.6 Check of longitudinal shear resistance of concrete flange
- 5. Commentary

B3 Simply-supported secondary composite beam supporting composite slab with profiled sheeting

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Ultimate limit state
- 4.1 Design values of combined actions and design values of effects of actions for construction stage
- 4.2 Design values of combined actions and design values of effects of actions for composite stage
- 4.3 Check for construction stage
- 4.3.1 Selection of steel cross-section

- 4.3.2 Classification of steel cross-section
- 4.3.3 Plastic resistance moment of steel cross-section
- 4.3.4 Shear resistance of steel cross-section
- 4.3.5 Interaction M-V (bending and shear force)
- 4.3.6 Resistance to lateral-torsional buckling
- 4.4 Check for composite stage
 - 4.4.1 Effective width of concrete flange
 - 4.4.2 Check of shear connection
 - 4.4.3 Plastic resistance moment of composite cross-section
 - 4.4.4 Lateral-torsional buckling of composite beam
 - 4.4.5 Check of longitudinal shear resistance of concrete flange
 - 4.4.5.1 Check of transverse reinforcement
 - 4.4.5.2 Crushing of concrete flange
- 5. Serviceability limit state
 - 5.1 General
 - 5.2 Calculation of deflections
 - 5.2.1 Construction stage deflection
 - 5.2.2 Composite stage deflection
 - 5.3 Simplified calculation of deflections
 - 5.4 Pre-cambering of steel beam
 - 5.5 Check vibration of beam
 - 5.6 Control of crack width
- 6. Commentary

B4 Calculation of simply-supported composite beam according to elastic resistance of cross-section

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Ultimate limit state
 - 4.1 Design values of combined actions and design values of effects of actions
 - 4.2 Effective width of concrete flange
 - 4.3 Elastic resistance of composite section to bending
 - 4.3.1 Calculation of centroid of steel cross-section
 - 4.3.2 Second moment of area of steel cross-section
 - 4.3.3 Flexural stiffness of composite cross-section
 - 4.3.4 Check of resistance of composite cross-section to bending
 - 4.4 Vertical shear resistance of composite cross-section
 - 4.5 Calculation of shear connection
 - 4.6 Check of longitudinal shear resistance of concrete flange
 - 4.6.1 Check of transverse reinforcement
 - 4.6.2 Crushing of concrete flange
- 5. Serviceability limit state
 - 5.1 General
 - 5.2 Calculation of deflections
 - 5.2.1 Construction stage deflection
 - 5.2.2 Composite stage deflection
 - 5.3 Pre-cambering of steel beam

- 5.4 Check of vibration of beam
- 5.5 Cracks
- 5.6 Stresses at serviceability limit state
- 6. Commentary

B5 Calculation of simply-supported composite beam according to plastic resistance of cross-section

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Ultimate limit state
 - 4.1 Design values of combined actions and design values of effects of actions
 - 4.2 Selection of cross-section
 - 4.3 Effective width of concrete flange
 - 4.4 Classification of steel cross-section
 - 4.5 Check of shear connection
 - 4.6 Plastic resistance moment of composite cross-section
 - 4.7 Vertical shear resistance of composite cross-section
 - 4.8 Check of longitudinal shear resistance of concrete flange
 - 4.8.1 Check of transverse reinforcement
 - 4.8.2 Crushing of concrete flange
- 5. Serviceability limit state
 - 5.1 General
 - 5.2 Calculation of deflections
 - 5.2.1 Construction stage deflection
 - 5.2.2 Composite stage deflection
 - 5.3 Pre-cambering of steel beam
 - 5.4 Check of vibration of beam
 - 5.5 Control of crack width
- 6. Commentary

B6 Calculation of continuous beam over two spans by means of elastic-plastic procedure

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Ultimate limit state
 - 4.1 Design values of combined actions and design values of effects of actions for construction stage
 - 4.2 Design values of combined actions and design values of effects of actions for composite stage
 - 4.3 Check for construction stage
 - 4.3.1 Selection of steel cross-section
 - 4.3.2 Classification of steel cross-section
 - 4.3.3 Plastic resistance moment of steel cross-section
 - 4.3.4 Shear resistance of steel cross-section
 - 4.3.5 Interaction of M-V (bending and shear force)
 - 4.3.6 Resistance to lateral-torsional buckling

- 4.4 Check for composite stage
 - 4.4.1 Effective width of concrete flange
 - 4.4.2 Classification of composite cross-section
 - 4.4.2.1 Cross-section in mid-span
 - 4.4.2.2 Cross-section at internal support
 - 4.4.3 Check of shear connection
 - 4.4.3.1 Resistance of headed stud connectors
 - 4.4.3.2 Arrangement of headed studs and degree of shear connection
 - 4.4.4 Resistance of composite section to bending
 - 4.4.4.1 Resistance to bending in mid-span
 - 4.4.4.2 Resistance to bending at internal support
 - 4.4.5 Lateral-torsional buckling of composite beam
 - 4.4.6 Check of longitudinal shear resistance of concrete flange
 - 4.4.6.1 Check of transverse reinforcement
 - 4.4.6.2 Crushing of concrete flange
- 5. Serviceability limit state
 - 5.1 General
 - 5.2 Calculation of deflections
 - 5.2.1 Construction stage deflection
 - 5.2.2 Composite stage deflection
 - 5.3 Pre-cambering of steel beam
 - 5.4 Check of vibration
 - 5.5 Control of crack width
 - 5.5.1 Minimum reinforcement area
 - 5.5.2 Control of cracking of concrete due to direct loading
- 6. Commentary

B7 Calculation of continuous beam over two spans by means of plastic-plastic procedure

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Ultimate limit state
 - 4.1 Design values of combined actions
 - 4.2 Selection of cross-section
 - 4.3 Effective width of concrete flange
 - 4.4 Classification of cross-section
 - 4.4.1 Cross-section in mid-span
 - 4.4.2 Cross-section at internal support
 - 4.5 Calculation of effects of actions
 - 4.6 Check of shear connection
 - 4.7 Resistance of composite section to bending in mid-span
 - 4.8 Vertical shear resistance of cross-section
 - 4.9 Interaction M-V (bending and shear force)
 - 4.10 Lateral-torsional buckling of composite beam
 - 4.11 Check of longitudinal shear resistance of concrete flange
 - 4.11.1 Check of transverse reinforcement
 - 4.11.2 Crushing of concrete flange

- 5. Serviceability limit state
 - 5.1 General
 - 5.2 Calculation of deflections
 - 5.2.1 Construction stage deflection
 - 5.2.2 Composite stage deflection
 - 5.3 Pre-cambering of steel beam
 - 5.4 Check of vibration of beam
 - 5.5 Control of crack width
 - 5.5.1 Minimum reinforcement area
 - 5.5.2 Control of cracking of concrete due to direct loading
- 6. Commentary

B8 Two-span composite beam – more detailed explanations of provisions of EN 1994-1-1

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Properties of cracked and uncracked cross-sections
- 5. Ultimate limit state
 - 5.1 Design values of combined actions and design values of effects of actions for construction stage
 - 5.2 Design values of combined actions and design values of effects of actions for composite stage
 - 5.3 Check for construction stage
 - 5.3.1 Classification of steel cross-section
 - 5.3.2 Plastic resistance moment of steel cross-section
 - 5.3.3 Shear resistance of steel cross-section
 - 5.3.4 Interaction of M-V (bending and shear force)
 - 5.3.5 Lateral-torsional buckling of steel beam
 - 5.4 Check for composite stage
 - 5.4.1 Effective width of concrete flange
 - 5.4.2 Classification of composite cross-section
 - 5.4.2.1 Cross-section in mid-span
 - 5.4.2.2 Cross-section at internal support
 - 5.4.3 Resistance of composite section to bending
 - 5.4.3.1 Resistance to bending in mid-span
 - 5.4.3.2 Resistance to bending at internal support
 - 5.4.4 Check of shear connection – ductile headed stud shear connectors
 - 5.4.4.1 Resistance of headed stud shear connectors
 - 5.4.4.2 Arrangement of headed stud shear connectors and degree of shear connection
 - 5.4.5 Check of shear connection – non-ductile headed stud shear connectors
 - 5.4.6 Resistance to lateral-torsional buckling
 - 5.4.6.1 Introductory consideration
 - 5.4.6.2 Calculation of flexural stiffness $(EI)_2$ of composite slab and k_s
 - 5.4.6.3 Calculation of k_c
 - 5.4.6.4 Calculation of M_{cr} and $M_{b,Rd}$
 - 5.4.6.5 Calculation of M_{cr} and $M_{b,Rd}$ for laterally restrained bottom flange
 - 5.4.7 Resistance to lateral-torsional buckling – simplified verification

- 5.4.8 Check of longitudinal shear resistance of concrete flange
- 5.4.8.1 Check of transverse reinforcement
- 5.4.8.2 Crushing of concrete flange
- 6. Serviceability limit state
- 6.1 General
- 6.2 Stress limits
- 6.3 Calculation of deflections
- 6.3.1 Construction stage deflection
- 6.3.2 Composite stage deflection
- 6.4 Control of crack width
- 6.4.1 Minimum reinforcement area
- 1.1.1 Control of cracking of concrete due to direct loading
- 7. Commentary

C Composite columns

C1 Composite column with concrete filled circular hollow section subject to axial compression and verified using European buckling curves

- 1. Purpose of example
- 2. Static system, cross-section and design action effects
- 3. Properties of materials
- 4. Geometrical properties of cross-section
- 4.1 Selection of steel cross-section and reinforcement
- 4.2 Cross-sectional areas
- 4.3 Second moments of area
- 5. Steel contribution ratio
- 6. Local buckling
- 7. Effective modulus of elasticity for concrete
- 8. Resistance of cross-section to compressive axial force
- 8.1 Plastic resistance of cross-section without confinement effect
- 8.2 Plastic resistance of cross-section taking into account confinement effect
- 9. Resistance of member in axial compression
- 9.1 Verification of conditions for using simplified design method
- 9.2 Check of resistance of member in axial compression
- 10. Commentary

C2 Composite column with concrete filled circular hollow section subject to axial compression, verified using European buckling curves and using second order analysis taking into account member imperfections

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Geometrical properties of cross-section
- 4.1 Selection of steel cross-section and reinforcement
- 4.2 Cross-sectional areas
- 4.3 Second moments of area
- 4.4 Plastic section moduli
- 5. Steel contribution ratio
- 6. Local buckling

7. Effective modulus of elasticity for concrete
8. Resistance of cross-section to compressive axial force
 - 8.1 Plastic resistance of cross-section without confinement effect
 - 8.2 Plastic resistance of cross-section taking into account confinement effect
9. Resistance of member in axial compression – using European buckling curves
 - 9.1 Verification of conditions for using simplified design method
 - 9.2 Check of resistance of member in axial compression
10. Resistance of member in axial compression – using second order analysis taking into account member imperfections
 - 10.1 General
 - 10.2 Verification of conditions for using simplified design method
 - 10.3 Resistance of cross-section in combined compression and uniaxial bending
 - 10.4 Calculation of action effects according to second order analysis
 - 10.5 Check of resistance of member in combined compression and uniaxial bending
11. Commentary

C3 Composite column with concrete filled circular hollow section subject to axial compression and uniaxial bending

1. Purpose of example
2. Static system, cross-section and design action effects
3. Properties of materials
4. Geometrical properties of cross-section
 - 4.1 Selection of steel cross-section and reinforcement
 - 4.2 Cross-sectional areas
 - 4.3 Second moments of area
 - 4.4 Plastic section moduli
5. Steel contribution ratio
6. Local buckling
7. Effective modulus of elasticity for concrete
8. Resistance of cross-section to compressive axial force
 - 8.1 Plastic resistance of cross-section without confinement effect
 - 8.2 Plastic resistance of cross-section taking into account confinement effect
9. Verification of conditions for using simplified design method
10. Resistance of member in axial compression
11. Resistance of member in combined compression and uniaxial bending
 - 11.1 General
 - 11.2 Resistance of cross-section in combined compression and uniaxial bending
 - 11.3 Calculation of action effects according to second order analysis
 - 11.3.1 General
 - 11.3.2 Bending moments – approximate solution
 - 11.3.3 Bending moments – exact solution
 - 11.3.4 Shear forces – approximate solution
 - 11.3.5 Shear forces – exact solution
 - 11.4 Check of resistance of member in combined compression and uniaxial bending
 - 11.5 Check of plastic resistance of composite section to transverse shear
12. Check of load introduction
13. Commentary

C4 Composite column with concrete filled rectangular hollow section subject to axial compression and uniaxial bending

1. Purpose of example
2. Static system, cross-section and design action effects
3. Properties of materials
4. Geometrical properties of cross-section
 - 4.1 Selection of steel cross-section and reinforcement
 - 4.2 Cross-sectional areas
 - 4.3 Second moments of area
 - 4.4 Plastic section moduli
5. Steel contribution ratio
6. Local buckling
7. Effective modulus of elasticity of concrete
8. Resistance of cross-section to compressive axial force
9. Verification of conditions for using simplified design method
10. Resistance of member in axial compression
11. Resistance of member in combined compression and uniaxial bending
 - 11.1 Resistance of member about y-y axis taking into account equivalent member imperfection $e_{0,z}$
 - 11.1.1 General
 - 11.1.2 Resistance of cross-section in combined compression and bending about y-y axis
 - 11.1.3 Calculation of effects of actions about y-y axis
 - 11.1.3.1 General
 - 11.1.3.2 Bending moments about y-y axis
 - 11.1.3.3 Shear forces parallel to z-z axis
 - 11.1.4 Check of resistance of member in combined compression and bending about y-y axis
 - 11.1.5 Check of plastic resistance to transverse shear parallel to z-z axis
 - 11.2 Resistance of member about z-z axis taking into account equivalent member imperfection $e_{0,y}$
 - 11.2.1 General
 - 11.2.2 Resistance of cross-section in combined compression and bending about z-z axis
 - 11.2.3 Calculation of action effects about y-y axis
 - 11.2.4 Calculation of action effects about z-z axis
 - 11.2.4.1 General
 - 11.2.4.2 Bending moments about z-z axis
 - 11.2.4.3 Shear forces parallel to y-y axis
 - 11.2.5 Check of resistance of member in combined compression and bending about z-z axis
 - 11.2.6 Check of plastic resistance to transverse shear parallel to y-y axis
12. Commentary

C5 Composite column with partially concrete-encased H-section subject to axial compression and uniaxial bending

1. Purpose of example
2. Static system, cross-section and design action effects
3. Properties of materials
4. Geometrical properties of cross-section

- 4.1 Selection of steel cross-section and reinforcement
- 4.2 Cross-sectional areas
- 4.3 Second moments of area
- 4.4 Plastic section moduli
- 5. Steel contribution ratio
- 6. Local buckling
- 7. Effective modulus of elasticity of concrete
- 8. Resistance of cross-section to compressive axial force
- 9. Verification of conditions for using simplified design method
- 10. Resistance of member in axial compression
- 11. Resistance of member in combined compression and uniaxial bending
- 11.1 Resistance of member about y-y axis taking into account equivalent member imperfection $e_{0,z}$
 - 11.1.1 General
 - 11.1.2 Resistance of cross-section in combined compression and bending about y-y axis
 - 11.1.2.1 General
 - 11.1.2.2 Interaction curve
 - 11.1.2.3 Interaction polygon
 - 11.1.3 Calculation of effects of actions about y-y axis
 - 11.1.3.1 General
 - 11.1.3.2 Bending moments about y-y axis
 - 11.1.3.3 Shear forces parallel to z-z axis
 - 11.1.4 Check of resistance of member in combined compression and bending about y-y axis
 - 11.1.5 Check of plastic resistance to transverse shear parallel to z-z axis
- 11.2 Resistance of member about z-z axis taking into account equivalent member imperfection $e_{0,y}$
 - 11.2.1 General
 - 11.2.2 Resistance of cross-section in combined compression and bending about z-z axis
 - 11.2.2.1 General
 - 11.2.2.2 Interaction curve
 - 11.2.2.3 Interaction polygon
 - 11.2.3 Calculation of action effects about y-y axis
 - 11.2.4 Calculation of action effects about z-z axis
 - 11.2.4.1 General
 - 11.2.4.2 Bending moments about z-z axis
 - 11.2.4.3 Shear forces parallel to y-y axis
 - 11.2.5 Check of resistance of member in combined compression and bending about z-z axis
 - 11.2.6 Check of plastic resistance to transverse shear parallel to y-y axis
- 12. Check of longitudinal shear outside the area of load introduction
- 13. Check of load introduction
 - 13.1 Load introduction for combined compression and bending
 - 13.2 Calculation of stud resistance
 - 13.3 Calculation of shear forces of studs based on elastic theory
 - 13.4 Calculation of shear forces of studs based on plastic theory
- 14. Commentary

C6 Composite column with fully concrete-encased H-section subject to axial compression and biaxial bending

1. Purpose of example
2. Static system, cross-section and design action effects
3. Properties of materials
4. Geometrical properties of cross-section
 - 4.1 Selection of steel cross-section and reinforcement
 - 4.2 Cross-sectional areas
 - 4.3 Second moments of area
 - 4.4 Plastic section moduli
5. Steel contribution ratio
6. Local buckling
7. Effective modulus of elasticity of concrete
8. Resistance of cross-section to compressive axial force
9. Verification of conditions for using simplified design method
10. Resistance of member in axial compression
11. Resistance of member in combined compression and uniaxial bending
 - 11.1 Resistance of member about y-y axis taking into account equivalent member imperfection $e_{0,z}$
 - 11.1.1 General
 - 11.1.2 Resistance of cross-section in combined compression and bending about y-y axis
 - 11.1.3 Calculation of effects of actions about y-y axis
 - 11.1.3.1 General
 - 11.1.3.2 Bending moments about y-y axis
 - 11.1.3.3 Shear forces parallel to z-z axis
 - 11.1.4 Check of resistance of member in combined compression and bending about y-y axis
 - 11.1.5 Check of plastic resistance to transverse shear parallel to z-z axis
 - 11.2 Resistance of member about z-z axis taking into account equivalent member imperfection $e_{0,y}$
 - 11.2.1 General
 - 11.2.2 Resistance of cross-section in combined compression and bending about z-z axis
 - 11.2.3 Calculation of action effects about z-z axis
 - 11.2.3.1 General
 - 11.2.3.2 Bending moments about z-z axis
 - 11.2.3.3 Shear forces parallel to y-y axis
 - 11.2.4 Check of resistance of member in combined compression and bending about z-z axis
 - 11.2.5 Check of plastic resistance to transverse shear parallel to y-y axis
12. Resistance of member in combined compression and biaxial bending
 - 12.1 General
 - 12.2 Failure about y-y axis is assumed
 - 12.2.1 General
 - 12.2.2 Calculation of action effects about y-y axis
 - 12.2.3 Calculation of action effects about z-z axis
 - 12.2.4 Check of resistance of member in combined compression and biaxial bending
 - 12.3 Failure about z-z axis is assumed
 - 12.3.1 General

- 12.3.2 Calculation of action effects about y-y axis
- 12.3.3 Calculation of action effects about z-z axis
- 12.3.4 Check of resistance of member in combined compression and biaxial bending
- 13. Commentary

D Composite slabs

D1 Two-span composite slab unpropped in construction stage

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Structural details of composite slab
 - 4.1 Slab thickness and reinforcement
 - 4.2 Largest nominal aggregate size
 - 4.3 Minimum value for nominal thickness of steel sheet
 - 4.4 Composite slab bearing requirements
- 5. Ultimate limit state
 - 5.1 Construction stage
 - 5.2 Composite stage
 - 5.2.1 Plastic resistance moment in sagging bending
 - 5.2.2 Longitudinal shear resistance
 - 5.2.3 Check for vertical shear resistance
- 6. Serviceability limit state
 - 6.1 Control of cracking of concrete
 - 6.2 Limit of span/depth ratio of slab
 - 6.3 Calculation of deflections
 - 6.3.1 Construction stage deflection
 - 6.3.2 Composite stage deflection
- 7. Commentary

D2 Three-span composite slab propped in construction stage

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Structural details of composite slab
 - 4.1 Slab thickness and reinforcement
 - 4.2 Largest nominal aggregate size
 - 4.3 Minimum value for nominal thickness of steel sheet
 - 4.4 Composite slab bearing requirements
- 5. Ultimate limit state
 - 5.1 Construction stage
 - 5.2 Composite stage
 - 5.2.1 Plastic resistance moment in sagging bending
 - 5.2.2 Longitudinal shear resistance
 - 5.2.3 Check for vertical shear resistance
- 6. Serviceability limit state
 - 6.1 Control of cracking of concrete
 - 6.2 Limit of span/depth ratio of slab
 - 6.3 Calculation of deflections

- 6.3.1 Construction stage deflection
- 6.3.2 Composite stage deflection
- 7. Commentary

D3 Three-span composite slab propped in construction stage-end anchorage and additional reinforcement

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Structural details of composite slab
 - 4.1 Slab thickness and reinforcement
 - 4.2 Largest nominal aggregate size
 - 4.3 Minimum value for nominal thickness of steel sheet
 - 4.4 Composite slab bearing requirements
- 5. Ultimate limit state
 - 5.1 Construction stage
 - 5.2 Composite stage
 - 5.2.1 Plastic resistance moment in sagging bending
 - 5.2.2 Longitudinal shear resistance
 - 5.2.2.1 Longitudinal shear resistance without end anchorage
 - 5.2.2.2 Longitudinal shear resistance with end anchorage
 - 5.2.2.3 Longitudinal shear resistance with additional reinforcement
 - 5.2.3 Check for vertical shear resistance
 - 5.3 Composite stage –alternatively composite slab is designed as continuous
 - 5.3.1 Plastic resistance moment in hogging bending
 - 5.3.2 Longitudinal shear resistance
 - 5.3.3 Check for vertical shear resistance
- 6. Serviceability limit state
 - 6.1 Control of cracking of concrete
 - 6.2 Limit of span/depth ratio of slab
 - 6.3 Calculation of deflections
 - 6.3.1 Construction stage deflection
 - 6.3.2 Composite stage deflection
- 7. Commentary

D4 Two-span composite slab unpropped in construction stage – commentaries on EN 1994-1-1

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Structural details of composite slab
 - 4.1 Slab thickness and reinforcement
 - 4.2 Largest nominal aggregate size
 - 4.3 Minimum value for nominal thickness of steel sheet
 - 4.4 Composite slab bearing requirements
- 5. Ultimate limit state
 - 5.1 Construction stage
 - 5.2 Composite stage

- 5.2.1 Plastic resistance moment in sagging bending
- 5.2.2 Longitudinal shear resistance
 - 5.2.2.1 Longitudinal shear resistance - m – k method
 - 5.2.2.2 Longitudinal shear resistance – partial connection method
- 5.2.3 Check for vertical shear resistance
- 6. Serviceability limit state
 - 6.1 Control of cracking of concrete
 - 6.2 Limit of span/depth ratio of slab
 - 6.3 Calculation of deflections
 - 6.3.1 Construction stage deflection
 - 6.3.2 Composite stage deflection
- 7. Commentary

D5 Hoesch additiv floor

- 1. Purpose of example
- 2. Generally about Hoesch Additiv Floor system
- 3. Structural system and cross section
- 4. Material properties
- 5. Selection of effective span length without supporting in construction stage
- 6. Ultimate limit state
 - 6.1 Calculation in construction stage
 - 6.1.1 Loads
 - 6.1.2 Action effects
 - 6.1.3 Design value of resistance moment
 - 6.1.4 Shear resistance
 - 6.1.5 Design of nail
 - 6.2 Calculation for final stage
 - 6.2.1 Loads
 - 6.2.2 Action effects
 - 6.2.3 Bending resistance
 - 6.2.4 Shear resistance
 - 6.2.5 Verification of anchor of rib-reinforcement due to bending moment
- 7. Serviceability limit state
 - 7.1 Cracking of concrete
 - 7.1.1 General
 - 7.1.2 Design for bending restraint
 - 7.1.3 Design for predominantly tensile restraint
 - 7.2 Deflections
- 8. Commentary

E Fatigue

E1 Fatigue verification for composite highway bridge

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Global analysis
- 5. Fatigue assessment
 - 5.1 Assessment of structural steel details

- 5.1.1 General
- 5.1.2 Design stress ranges – cross-section 1-1
- 5.1.3 Design stress ranges – cross-section 2-2
- 5.1.4 Design stress ranges – cross-section 3-3
- 5.2 Assessment of reinforcing steel
- 5.3 Assessment of shear connection
 - 5.3.1 General
 - 5.3.2 Design shear stress – cross-section 1-1
 - 5.3.3 Design shear stress range – cross-section 2-2
 - 5.3.4 Design shear stress range – cross-section 3-3
 - 5.3.5 Design shear stress – cross-section 4-4
- 6. Commentary

E2 Fatigue assessment on example of composite beam of floor structure

- 1. Purpose of example
- 2. Static system, cross-section and actions
- 3. Properties of materials
- 4. Properties of the IPE 450 cross-section
- 5. Effective widths of concrete flange
- 6. Classification of composite cross-section
- 7. Flexural properties of elastic cross-section
- 8. Global analysis
 - 8.1 Introductory considerations
 - 8.2 Calculation of bending moment at support B
- 9. Fatigue assessment
 - 9.1 General
 - 9.2 Verification for reinforcement at cross-section B
 - 9.3 Verification for shear connection near point D
- 10. Commentary
- F Types of composite joints
 - F1 Beam to beam joints
 - F2 Beam to column joints

Literature