



## **Addendum bridges:2015 section 5.2.3 Additional provisions specific for bridges**

### **DS/EN 1991-1-1 DK NA:2013**

National Annex to

**Eurocode 1: Actions on structures –**

**Part 1-1: General actions – Densities, self-weight, imposed loads for buildings**

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#### **Preface**

The implementation of Eurocodes has involved the preparation of

- National Annexes to the bridge-specific Eurocodes
- Addenda to National Annexes for bridge-specific sections in Eurocodes for loads.

Together with the basic Eurocodes, including the related national annexes, these constitute the codes of practices to be applied in the design of bridges in Denmark.

#### **Scope**

This Addendum to National Annex sets out the conditions for implementing section 5.2.3, Additional provisions specific for bridges in EN 1991-1-1.

#### **Contents**

This National Annex contains the national choices that apply in Denmark.

The national choices may be in the form of current national values, a choice between several methods or addition of supplementary guidance.

In connection with the national choices, the national annexes may refer to Banedanmark's Railway Standards (e.g. BN1-59) or Danish Road Directorate's Road Standards.

Reference may also be made to the infrastructure manager (IF). IF is the authority which has ownership and/or holds maintenance responsibility for a road bridge or for a railway bridge. Examples of IFs include the Danish Road Directorate, local authorities, Banedanmark and regional railway providers.

In addition, the National Annex includes an overview of all the items where it has been possible to make a national choice.



## Items for which a national choice has been made

Page	Item	Subject	National choice
18	5.2.3 (2)	Upper and lower characteristic value of densities of ballast on railway bridges	Reference is made to BN1-59 Load and calculation directions for bridges with railway tracks and earth structures
18	5.2.3 (3)	Upper and lower characteristic value of self-weight of water-proofing, surfacing and other coatings for bridges where the variability of their thickness may be high.	Under normal conditions where the variation of the thickness is not expected to vary greatly, the nominal value is applied.
18	5.2.3 (4)	Upper and lower characteristic value of the self-weight of cables, pipes and other casing	The nominal value can generally be applied as the characteristic value, unless otherwise specified or where greater variations can be expected over time.
31	Table 6.12	Horizontal loads on partition walls and parapets	The values stated in the table as well as the values stated in EN 1991-1-1 DK NA do not apply to bridges.
	Annex A (informative)		
36	Table A.6	Densities for bridge materials	For materials used for railway bridges, reference is made to Railway Standard BN1-59.



## Overview of possible national choices

The following overview shows the places where a national choice is possible and which informative annexes that apply/do not apply. Moreover, it is specified where a national choice has been made.

In addition, this National Annex provides references to supplementary (non-conflicting) information which may assist to the user of the Eurocode.

Page	Item	Subject	National choice
18	5.2.3 (1)	Upper and lower characteristic value of specific densities for non-load bearing parts, which can change with time.	No national choice.
18	5.2.3 (2)	Upper and lower characteristic value of densities of ballast on railway bridges	National choice specified.
18	5.2.3 (3)	Upper and lower characteristic value of self-weight of waterproofing, surfacing and other coatings for bridges where the variability of their thickness may be high.	National choice specified.
18	5.2.3 (4)	Upper and lower characteristic value of the self-weight of cables, pipes and other casing.	National choice specified.
18	5.2.3 (5)	Characteristic value of self-weight of other non-load bearing elements.	No national choice.

Note: No national choice implies that a recommendation in the code of practice is observed.

## DISCLAIMER

The translation into English of Road Standards (Vejregler), Tender Specifications and National Annexes is to be regarded entirely as a service. In the event of any discrepancy or shortcomings in the translation, the Danish version will prevail. At any time the Danish versions of Road Standards (Vejregler), Tender Specifications and National Annexes are those in force.