

**SS 580 : 2020**  
(ICS 91.080.99)

**SINGAPORE STANDARD**

# **Code of practice for formwork**



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Published by Enterprise Singapore

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ISBN 978-981-49-2506-8

The content of this Singapore Standard was approved on 8 July 2020 by the Building and Construction Standards Committee (BCSC) under the purview of the Singapore Standards Council.

First published, 1982

First revision, 2000

Second revision and re-numbered as SS 580, 2012

Third revision, 2020

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The Technical Committee set up the Working Group on Formwork to prepare this standard. The Working Group consists of the following experts who contribute in their *individual capacity*:

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*Building and Construction Authority*  
*Ministry of Manpower*  
*Nanyang Technological University*  
*Singapore Contractors Association Ltd*  
*Star Academy Pte Ltd*

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**Contents**

	<b>Page</b>
Foreword _____	6
1 Scope _____	8
2 Normative references _____	8
3 Terms and definitions _____	8
4 Materials and formwork systems _____	11
5 Design _____	14
6 Drawings _____	29
7 Erection and use _____	31
8 Dismantling _____	35
9 Safety _____	37

**Tables**

1 Buckling curves applicable to various sections in compression _____	21
2 Buckling curves applicable to various sections in bending _____	24
3 Stress reduction factors for columns and beams _____	25
4 Tolerances for as-cast reinforced concrete structures _____	31
5 Striking and propping period for formwork _____	36

**Figures**

1 Buckling curves for compressive stress reduction _____	21
2 Buckling curves for bending stress reduction _____	24

Bibliography _____	41
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## Foreword

This Singapore Standard was prepared by the Working Group on Formwork set up by the Technical Committee on Construction Management under the purview of BCSC.

This is a revision of SS 580 : 2012, "Code of practice for formwork". The key changes to the standard are shown as follows:

- Aligned provisions with current regulations and industry practices.
- Increased the load safety factor which is used for all testing to 2.0.
- Simplified some of the design options, such as the lateral pressures on formwork due to fresh concrete.
- Standardised the loadings due to concreting.
- Included charts and tables for easy read-off of reduction factors for compressive stresses and lateral torsional buckling stresses were included.
- Generalised or omitted specific details of bracings and other practical details dependent on site conditions in order to keep up with the move towards being less prescriptive and more performance-oriented.
- Aligned the terminology with local and international usage.
- Included recommended safe work practices, particularly for working at heights, and risk assessment in design and construction of formwork.

It is presupposed that in the course of their work, users will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore will not be responsible for identifying all of such legal obligations.

In preparing this standard, reference was made to the following publications:

1. SS EN 1990:2008 Eurocode – Basis of structural design
2. NA to SS EN 1990:2008 Singapore National Annex to Eurocode – Basis of structural design
3. SS EN 1992-1-1:2008 Eurocode 2 – Design of concrete structures – Part 1-1: General rules and rules for buildings
4. NA to SS EN 1992-1-1:2008 Singapore National Annex to Eurocode 2 – Design of concrete structures – Part 1-1: General rules and rules for buildings
5. SS EN 1993-1-1:2010 Eurocode 3 – Design of steel structures – Part 1-1: General rules and rules for buildings
6. NA to SS EN 1993-1-1:2010 Singapore National Annex to Eurocode 3 – Design of steel structures – Part 1-1: General rules and rules for buildings
7. SS EN 1995-1-1: 2018 Eurocode 5 – Design of timber structures – Part 1-1: General – Common rules and rules for buildings
8. NA to SS EN 1995-1-1: 2018 Singapore National Annex to Eurocode 5 – Design of timber structures – Part 1-1: General – Common rules and rules for buildings
9. BS EN 12812:2008 Falsework – Performance requirements and general design
10. Workplace Safety and Health (Construction) Regulations 2007 Part IX Formwork Structures

Acknowledgement is made for the use of information from the above publications.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

**NOTE**

- 1. Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "Mature Standards". Mature Standards will not be subject to further review, unless there are requests to review such standards.*
- 2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.*
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.*

## Code of practice for formwork

### 1 Scope

The recommendations of this Code apply to the design, erection, use, alteration and dismantling of formwork structure for any reinforced concrete works.

### 2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

SS EN 1991-1-4	Eurocode 1 – Actions on structures – Part 1-4 : General actions – Wind actions
NA to SS EN 1991-1-4	National Annex to Eurocode 1 – Actions on structures – Part 1-4 : General actions – Wind actions
	Code of practice for working safely at heights