

SINGAPORE STANDARD
Code of practice for formwork
(Formerly ~~GP 23~~)

~~Incorporating Corrigendum No. 1~~

Published by

**Enterprise
Singapore**

SS 580: 20122020

(ICS 91.080.99)

SINGAPORE STANDARD

Code of practice for formwork

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ISBN 978-981-~~4353-43~~-449-2506-8

~~This Singapore~~The content of this Singapore Standard was approved on 8 July 2020 by the Building and Construction Standards Committee ~~on behalf of~~(BCSC) under the purview of the Singapore Standards Council on ~~6 November 2012~~.

First published, 1982

First revision, 2000

Second revision and re-numbered as SS 580, 2012

Third revision, 2020

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

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	Mr C Kirubakaran
	Ms Koh Chin Chin
	Dr N Krishnamurthy
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	Mr Anderson Ng Wee Khiang
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The organisations in which the experts of the Working Group are involved are:

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Ministry of Manpower
~~*R-Star Consultants Pte Ltd*~~ *Nanyang Technological University*
Singapore Contractors Association Ltd
~~*SIPM Consultants*~~ *Star Academy Pte Ltd*

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Foreword

This Singapore Standard ~~Code of Practice~~ was prepared by the Working Group ~~for review of GP 23 under the direction of the~~ on Formwork set up by the Technical Committee on Construction Management. ~~The Technical Committee is~~ under the purview of ~~the Building and Construction Standards Committee~~ BCSC.

This ~~standard~~ is a revision of ~~GP 23 : 2000 'Code~~ SS 580 : 2012, "Code of practice for ~~formwork~~". With the adoption of the Eurocodes formwork". The key changes to the standard are shown as well as the introduction of Workplace Safety and Health Regulations, it is important to align this Code follows:

- Aligned provisions with ~~the~~ current regulations and industry practices. ~~One major outcome of this alignment is the increase in the~~
- Increased the load safety factor ~~to 2.0~~, which ~~shall also be~~ is used for all testing to 2.0.
- ~~Some~~ Simplified some of the design options ~~were simplified~~, such as the lateral pressures on formwork due to fresh concrete. ~~Loadings~~
- Standardised the loadings due to concreting ~~were standardised~~. ~~Charts~~.
- Included charts and tables for easy read-off of ~~permissible~~ reduction factors for compressive stresses and lateral torsional buckling stresses were included.
- ~~In keeping with the move towards being less prescriptive and more performance oriented,~~ Generalised or omitted specific details of bracings and other practical details dependent on site conditions ~~have been generalised or omitted~~. ~~Terminology has been brought more in line~~ in order to keep up with the move towards being less prescriptive and more performance-oriented.
- Aligned the terminology with local and international usage.
- ~~The importance of safety~~, Included recommended safe work practices, particularly ~~in regard to~~ for working at height, heights, and risk assessment in design and construction of formwork ~~is emphasised by the inclusion of recommended safe work practices in the appropriate sections of the Code~~.

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 ~~Code~~ standard, reference was made to the following publications:

1. SS EN 1990:2008 ~~Eurocodes~~ 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
- ~~3~~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
- ~~4~~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
510. 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.

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