SINGAPORE STANDARD

SS 104 : 1996

(ICS 91.080.10;77.080.20)

SPECIFICATION FOR

Cold-formed steel sections for general structures

Published by
SPRING Singapore
2 Bukit Merah Central
Singapore 159835
SPRING Singapore Website: www.spring.gov.sg
Standards Website: www.standards.org.sg

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ISBN 9971-67-574-9

CONTENTS

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COLD-FORMED STEEL SECTIONS FOR GENERAL STRUCTURES

FOREWORD

This specification was prepared by the Technical Committee on review of SS 104 under the direction of the Building Materials Product Standards Committee.

It is a revision of SS 104 : 1974 'Specification for light gauge steel for general structures'. It incorporates in particular the following changes from the previous standard:

(a) Steel sections with minimum yield strength of 450 N/mm^2 have been included;

(b) The types of sections have been reduced from six to four and the scope limited to sections of thickness 6 mm or less;

(c) The method of tensile test in accordance with ISO 6892;

(d) A new clause on protection against corrosion;

Appendix A of this Singapore Standard is for information only. Other shapes and sections not listed in this standard are not precluded for use provided they comply with the requirements of this specification.

In preparing this specification, reference was made to the following standards :

1.	AS 1397 : 1993	Steel sheet and strip - Hot-dipped zinc-coated or aluminium/zinc-coated
2.	BS 1449 : -	Steel plate, sheet and strip Part 1. Carbon and carbon-manganese plate, sheet and strip - Section 1.4 : 1991 Specification for hot rolled wide material based on specified minimum strength
3.	BS 2994 : 1976(1987)	Specification for cold rolled steel sections
4.	ISO 6892 : 1984	Metallic materials - Tensile testing
5.	JIS G 3350 : 1987	Light gauge steels for general structure.

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

NOTE

1. Singapore Standards are subject to periodic review to keep abreast of technological changes and new technical developments. The revisions of Singapore Standards are announced through the issue of either amendment slips or revised editions.

2. Compliance with a Singapore Standard does not exempt users from legal obligations.

1. SCOPE

This standard specifies four simple types of cold-formed steel sections of thickness 6 mm or less for use in buildings or other structures.

2. DESCRIPTION AND SYMBOL

The description and symbol of the cold-formed steel sections shall be as shown in Table 1.

Table 1. Description and symbol

Description	Symbol
Plain channel section	
Angle section	
Lipped channel section	
Lipped Z section	

3. METHOD OF MANUFACTURE

Cold-formed steel sections shall be manufactured from steel plates or strips by the press-brake method or the roll-forming method, depending on the size, shape, thickness and length of the desired product.

4. CHEMICAL COMPOSITION

The chemical composition of the cold-formed steel shall conform to Table 2 when determined according to the ladle analysis.

Table 2. Chemical composition

Yield strength (R_e) min.	Carbon (C) max.	Phosphorus (P) max.	Sulphur (S) max.	Manganese (Mn) max.
N/mm^2	%	%	%	%
250	0.25	0.050	0.050	1.20
450	0.20	0.040	0.030	1.20