



STEEL COIL ORDERING INFORMATION



S/M/2

Version 2024.1

 **SCOTTSDALE**
THE TRUSTED STEEL-FRAMING PARTNER

DISCLOSURES

The SCOTTSDALE CONSTRUCTION SYSTEMS mission is to take care of its customers by being the safest, highest quality, lowest cost, most productive and most profitable load-bearing light-gauge steel framing products company in the world.

This manual outlines the ordering requirements for steel coils based on various country codes, including those of Australia, North America, and the Eurocode. It consolidates the current practices, methods, tools, and requirements utilized by SCOTTSDALE CONSTRUCTION SYSTEMS to ensure the quality of steel used in its roll formers to produce steel frames. Adhering to these guidelines enables SCOTTSDALE CONSTRUCTION SYSTEMS to maintain compliance with international standards and meet customer expectations. The information presented here provides a valuable resource for training, audits, and both internal and external reviews.

The contents of this manual will be reviewed annually and updated as required by the Industrial Engineering function within the manufacturing organization for SCOTTSDALE CONSTRUCTION SYSTEMS, to assure accuracy and completeness of the information.

STEEL COIL ORDERING INFORMATION

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SECTION I:INTRODUCTION

Steel coils are a critical component in the manufacturing process of cold-formed steel frames. Selecting the appropriate specifications for the steel coils is essential to ensuring the smooth production of steel frames using Scottsdale roll formers. The quality of the steel frames produced depends entirely on the quality and mechanical properties of the steel coil used. Therefore, it is crucial to choose the correct steel coil for the roll-forming process. This document summarizes the ordering specifications for major country codes as listed below.

- Australia – AS 1397:2021
- North America – ASTM A653/A653M - 20
- Europe – EN 10346

This information will help in choosing the correct steel coil for your desired application and ensuring compatibility with the Scottsdale roll formers.

Note: Only options related to Scottsdale roll formers are listed in this document.

SECTION II:AS 1397:2021

Requirements and corresponding options in choosing coil in accordance with AS 1397:2021 are tabulated below. Not all requirements are mandatory according to the code, but it is advisable to check with the steel supplier before the coil purchase.

No	Requirement	Options		
1	The number of the corresponding Australian Standards	AS 1397:2021		
2	Type of product required	<ul style="list-style-type: none"> • Coil strip • Coil length 		
3	Designation of steel-grade	<p>Naming convention is as follows. AS 1397/Grade Coating</p> <p>Grade Options</p> <ul style="list-style-type: none"> • G350 • G450 • G500 • G550 		
4	Designation of coating class	<ul style="list-style-type: none"> • AM150 • Z275 		
5	Surface finish, including any chemical treatment required	<ul style="list-style-type: none"> • Regular spangle – R • Spangle free – f 		
6	Quantity (mass, or number of sheets) and delivery instructions (dates, schedules, delivery points)	Based on user/project requirements		
7	Dimensions, including thickness, width and length and reference to AS/NZS for applicable tolerances	SCOTPANEL Options		
		Roll former	Coil Width (mm)	Thickness (mm)
		5090	190	0.75, 0.95, 1.15
		5140	244	0.75, 0.95, 1.15
7063	143	0.55, 0.75, 0.95		

		7070	153	0.55, 0.75, 0.95
		7076	156	0.55, 0.75, 0.95
		7090	173	0.55, 0.75, 0.95, 1.15
		SCOTTRUSS Options		
		6050	173	0.55, 0.75, 0.95, 1.15
		6075	224	0.95, 1.15, 1.55
8	Defects allowable	Based on user/project requirements		
9	Testing requirements, the frequency of testing and whether a test certificate is required	Requirement Options – Yes/No Frequency – Based on user/project requirements		
10	Whether the purchaser intends to inspect the coated steel at the manufacturer's work	Yes/No		
11	Any special or supplementary requirements	Based on user/project requirements		
12	Any information concerning processing or end use that the purchaser considers would assist the manufacturer. Note that soldering of material having an aluminum/zinc coating is not practicable	Based on user/project requirements		

Note:

- All dimensions are in Metric units unless otherwise specified.
- For further information refer to Appendix A of AS 1397:2021.

SECTION III:ASTM A653 – 20 (IMPERIAL)

Requirements and corresponding options in choosing coil in accordance with AS A653/A653M - 20 are tabulated below. Not all requirements are mandatory according to the code, but it is advisable to check with the steel supplier before the coil purchase.

No	Requirement	Options		
1	Designation of coating	Zinc-coated		
2	Name of the product	Zinc-coated (galvanized)		
3	Designation of sheet	<ul style="list-style-type: none"> • SS • HSLAS • HSLAS-F 		
4	Designation of steel-grade	SS – Grades 33 and 50 ksi - Class 1 HSLAS and HSLASF – Grade 50 ksi – Class 1		
5	Designation of coating class	Z275		
6	Chemically treated or not	No		
7	Oiled or not oiled	No		
8	Surface finish	<ul style="list-style-type: none"> • Regular spangle • Spangle free 		
9	Extra smooth (if required)	No		
10	Phosphatized	No		
11	Dimensions, including thickness, width and length and reference to AS/NZS for applicable tolerances	SCOTPANEL Options		
		Roll former	Coil Width (in.)	Thickness (Ga.)
		5090	7.4803	22, 20, 18
		5140	9.6062	22, 20, 18
		7063	5.6299	24, 22, 20
		7070	6.0236	24, 22, 20
		7076	6.1417	24, 22, 20

		7090	6.8110	24, 22, 20, 18
		SCOTTRUSS Options		
		6050	173	24, 22, 20, 18
		6075	224	20, 18, 16
12	Coil size requirements	Refer to row 11 for roll former specific requirements		
13	Packaging	Based on user/project requirements		
14	Certification if required, heat analysis and mechanical property report	Requirement Options – Yes/No Frequency – Based on user/project requirements		
15	Application	Part identification and description		
16	Any special or supplementary requirements	Based on user/project requirements		
17	If required, the product Base Metal Thickness	Refer to row 11 for roll former specific requirements		

Note:

- All dimensions are in Imperial units unless otherwise specified.

SECTION IV:ASTM A653M – 20 (METRIC)

Requirements and corresponding options in choosing coil in accordance with AS A653/A653M - 20 are tabulated below. Not all requirements are mandatory according to the code, but it is advisable to check with the steel supplier before the coil purchase.

No	Requirement	Options		
1	Designation of coating	Zinc-coated		
2	Name of the product	Zinc-coated (galvanized)		
3	Designation of sheet	<ul style="list-style-type: none"> • SS • HSLAS • HSLAS-F 		
4	Designation of steel-grade	SS – Grades 230 and 340 MPa - Class 1 HSLAS and HSLASF – Grade 340 MPa – Class 1		
5	Designation of coating class	Z275		
6	Chemically treated or not	No		
7	Oiled or not oiled	No		
8	Surface finish	<ul style="list-style-type: none"> • Regular spangle • Spangle free 		
9	Extra smooth (if required)	No		
10	Phosphatized	No		
11	Dimensions, including thickness, width and length and reference to AS/NZS for applicable tolerances	SCOTPANEL Options		
		Roll former	Coil Width (mm)	Thickness (mm)
		5090	190	0.75, 0.95, 1.15
		5140	244	0.75, 0.95, 1.15
		7063	143	0.55, 0.75, 0.95
		7070	153	0.55, 0.75, 0.95
7076	156	0.55, 0.75, 0.95		

		7090	173	0.55, 0.75, 0.95, 1.15
		SCOTTRUSS Options		
		6050	173	0.55, 0.75, 0.95, 1.15
		6075	224	0.95, 1.15, 1.55
12	Coil size requirements	Refer row 11 for roll former specific requirements		
13	Packaging	Based on user/project requirements		
14	Certification if required, heat analysis and mechanical property report	Requirement Options – Yes/No Frequency – Based on user/project requirements		
15	Application	Part identification and description		
16	Any special or supplementary requirements	Based on user/project requirements		
17	If required, the product Base Metal Thickness	Refer row 11 for roll former specific requirements		

Note:

- All dimensions are in Metric units unless otherwise stated.

SECTION V:EN 10346:2015

Requirements and corresponding options in choosing coil in accordance with EN 10346:2015 are tabulated below. Some requirements are mandatory according to the code while there is some optional information provided as well. It is advisable to check with the steel supplier before the coil purchase.

MANDATORY INFORMATION

No	Requirement	Options
	Quantity to be delivered	Based on user/project requirements
A	Type of product	<ul style="list-style-type: none"> • Strip • Sheet • Cut length
B	Number of the dimensional standard	EN 10143
C	Dimensions, including thickness, width and length and reference to AS/NZS for applicable tolerances	SCOTPANEL Options
		Roll former Coil Width (mm) Thickness (mm)
		5090 190 0.75, 0.95,1.15
		5140 244 0.75, 0.95, 1.15
		7063 143 0.55, 0.75, 0.95
		7070 153 0.55, 0.75, 0.95
		7076 156 0.55, 0.75, 0.95
		7090 173 0.55, 0.75, 0.95, 1.15
		SCOTTRUSS Options
		6050 173 0.55, 0.75, 0.95, 1.15
6075 224 0.95, 1.15, 1.55		
D	Nominal dimensions and tolerances on dimensions and shape and, if applicable. Letters denoting relevant special tolerances	Not applicable

E	Nomenclature	Steel
F	Number of the standard	EN 10346
G	Steel name or steel number and symbol for the type of hot-dip coating as given in Tables 1 to 5	<ul style="list-style-type: none"> • S350GD+z • S450GD+z
H	Number designating the nominal mass of coating	Z275 – 275 g/m ²
I	Letter denoting the coating finish	N (Normal spangle)
J	Letter denoting the surface quality	<ul style="list-style-type: none"> • A (As coated surface) • B (Improved surface) • C (Best quality surface)
K	Letter denoting the surface treatment	C (Chemical passivation)

OPTIONAL INFORMATION

1	Specification of product thickness deviating from those generally covered in the scope (i.e. $t < 0.20$ mm or 3 mm $\leq t \leq 6.5$ mm)	Not applicable
2	Specification of hot-rolled products deviating from those generally covered in the scope	Not applicable
3	Verification of the product analysis	Physical verification if needed
4	Date of supply of products free from stretcher strains when cold forming	Not applicable
5	Products supplied suitable for the manufacturer of a specific part	Not applicable
6	Coating masses different from those of Table 12 and/or special requirements for different coating masses on each surface	Not applicable
7	Special coating and/or surface qualities	Not applicable
8	Hot-dip zinc-coated products with pronounced spangle	Not applicable

9	Special requirements for a maximum Al-Fe-Si alloy layer mass occurring during hot-dip aluminum-silicon coating	Not applicable
10	Hot-dip coated products with surface quality A without skin passing	Not applicable
11	Requirement for special applications on bright appearance for aluminum-silicon coated products (type B surface)	Not applicable
12	Range and verification of surface roughness	Not applicable
13	Selection of protective oil	Not applicable
14	Type of S coating	Not applicable
15	Products free from coil breaks	Based on user/project requirements
16	Maximum or Minimum value for the coating mass on each product side	Not applicable
17	Type of inspection and if applicable, inspection document to be delivered	Based on user/project requirements
18	Determination of the tensile properties/ and or the Bake-Hardening Index BH2 and/or the coating mass by calculation	Not applicable
19	Notification of which surface has been inspected	Based on user/project requirements
20	Marking desired by branding of the products	Based on user/project requirements
21	Requirement for packing	Based on user/project requirements

Note:

- All dimensions are in Metric units unless otherwise specified.
- For further information refer to Section 5 of EN 10346:2015.

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