



Welding Technology Institute of Australia

TGN-BC-02

Structural Hollow Sections: Mill Galvanized Steel Products

SCOPE

This Technical Guidance Note provides information on galvanized steel products supplied by Smorgon Steel Tube Mills and OneSteel Market Mills. All materials are manufactured to AS 1163: Structural steel hollow sections, except for OneSteel's Galtube® Plus, which is produced to OneSteel's Tubeline® Specification. The coating quality meets the requirements of AS/NZS 4792: Hot-dip galvanized (zinc) coating on ferrous hollow sections, applied by a continuous or a specialized process.

How to select the product you require

1. Choose the specification for the galvanized coating that you require from Tables a) to c).
2. Read off the appropriate Smorgon Steel Tube Mills or OneSteel Market Mills tradename.
3. Using the tradename, refer to the Tables below and check the product availability.

Note: For further information on availability and other surface finishes contact:
 - Smorgon Steel Tube Mills (www.smorgonsteel.com.au/tubemills)
 - OneSteel Market Mills (www.onesteel.com)

a) Hot-dip galvanized coatings applied to both surfaces (HDG)

Specification	Coating Class	Average coating mass g/m ² min.	Approximate minimum coating thickness (µm)		OneSteel Tradename	Smorgon Steel Tradename
			Local	Average		
AS/NZS 4792 (Section 2)	HDG300	300	34	42	Tubeline® - Galvanised	Hot Dip Gal

b) Hot-dip galvanized coatings produced by pre-galvanized strip (ZB)

Specification	Coating Class	mass g/m ² min.	Average coating mass g/m ² min.		OneSteel Tradename	Smorgon Steel Tradename
			External	Internal		
AS/NZS 4792 (Section 3)	ZB 100/100	80	100	100		SupaGal®

c) In-line hot-dip galvanized coatings applied to external surfaces only (ILG)

Specification	Coating Class	mass (external surface) g/m ² min.	Approximate minimum coating thickness (µm)		OneSteel Tradename	Smorgon Steel Tradename
			Local	Average		
AS/NZS 4792 (Section 4)	ILG100	100	11	14	DuraGal® Galtube® Plus	
	ILG125	125	14	18		

SHS						
Specification	Tubeline®	AS 1163				
Grade	350L0	C350L0/C450L0				
Designation d b t	Galvanized Finish					
	OneSteel	OneSteel	Smorgon Steel			
100 x 100 x 10.0						
9.0						
8.0						
6.0		DuraGal®				
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
90 x 90 x 3.0						
2.5		DuraGal®				
2.0		DuraGal®				
1.6		DuraGal®				
89 x 89 x 6.0						
5.0		DuraGal®	SupaGal®			
3.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
75 x 75 x 6.0						
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.5		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
65 x 65 x 6.0						
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
50 x 50 x 6.0						
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
40 x 40 x 4.0						
3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
35 x 35 x 3.0						
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
30 x 30 x 3.0						
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
25 x 25 x 3.0						
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
20 x 20 x 2.0						
1.6	Galtube® Plus	DuraGal®	SupaGal®			

RHS						
Specification	Tubeline®	AS 1163				
Grade	350L0	C350L0/C450L0				
Designation d b t	Galvanized Finish					
	OneSteel	OneSteel	Smorgon Steel			
150 x 50 x 6.0		DuraGal®				
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
127 x 51 x 6.0						
5.0						
3.5						
125 x 75 x 6.0						
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
102 x 76 x 6.0						
5.0						
3.5						
100 x 50 x 6.0						
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.5		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
76 x 38 x 4.0						
3.0						
2.5						
75 x 50 x 6.0						
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
1.6		DuraGal®	SupaGal®			
75 x 25 x 2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
65 x 35 x 4.0						
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
1.6		DuraGal®	SupaGal®			
50 x 25 x 3.0						
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
50 x 20 x 3.0						
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	DuraGal®	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			

CHS												
Specification	AS 1163				Tubeline®	AS 1163						
Grade	C250L0				Tubeline® C350L0	350L0 C350L0						
Designation do t	Galvanized Finish											
	OneSteel		Smorgon Steel		OneSteel				Smorgon Steel			
165.1 x 5.4	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
139.7 x 5.4	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
114.3 x 5.4	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
101.6 x 5.0	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
88.9 x 5.9	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
76.1 x 5.9	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
60.3 x 5.4	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
48.3 x 5.4	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
42.4 x 4.0	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
33.7 x 4.0	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
26.9 x 4.0	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
21.3 x 3.2	Tubeline® - Galvanised		HotDipGal									
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			
	Tubeline® - Galvanised		HotDipGal						HotDipGal			
	Tubeline® - Galvanised		HotDipGal		Tubeline® - Galvanised				HotDipGal			

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As a valued technology expert in this area we would like you to be part of the Technology Expert Group to review this note. Please complete this questionnaire so that we can gauge the success of meeting this need.

Objective 1: Identify the need to increase understanding of mill galvanized steel products

Galvanized products are being increasingly adopted in the building and construction industry. It is recognized that the industry needs to help the customer choose the correct product for the application. This guidance note is intended to provide the Building & Construction Industry with a simple comparison of standard designations to product trade names. How well does the document explain structural hollow sections: mill galvanized steel products?

poor average good very good

Comments: _____

Objective 2: Identify appropriate technology receptors in the Building & Construction Industry

This document was written for fabricators, designers and procurement personnel in the Building & Construction Industry. Are these people the appropriate individuals we should be targeting?

yes no

What other types of companies and/or personnel do you suggest we target?

Objective 3: Identify current best practice for Structural Hollow Sections: Mill Galvanized Steel Products

The document was written to reflect current best practice for structural hollow sections: mill galvanized steel products. Do you envisage opportunities for the use of this technology in the industry?

yes no

If yes, what and where, if no why not?

Objective 4: Is the information provided clear, concise and accurate?

yes no

If not, why? _____

Objective 5: Broad dissemination of technology to the Building & Construction Industry

Please indicate how best to disseminate this Technical Guidance Note to the appropriate Building & Construction Industry Recipients

Free Website Download Poster Pocket Guide Pamphlet

If poster, what size? A1 A2 A3 Laminated What selling price? \$

If a pocket guide, what selling price? \$

Other format? _____

