

**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](http://www.smorgonsteel.com.au/tubemills))  
- OneSteel Market Mills ([www.onesteel.com](http://www.onesteel.com))

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

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

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

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

SHS						
Specification	Tubeline®	AS 1163				
Grade	350L0	C350L0/C450L0				
Designation d b t	Galvanized Finish					
mm mm mm	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		DuraGal®				
2.5		DuraGal®				
2.0		DuraGal®				
1.6		DuraGal®				
89 x 89 x 6.0		DuraGal®	SupaGal®			
5.0		DuraGal®	SupaGal®			
3.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
75 x 75 x 6.0		DuraGal®				
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		DuraGal®	SupaGal®			
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	Galtube® Plus	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
50 x 50 x 6.0		DuraGal®	SupaGal®			
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.5		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	Galtube® Plus	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
40 x 40 x 4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	Galtube® Plus	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
35 x 35 x 3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	Galtube® Plus	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
30 x 30 x 3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
25 x 25 x 3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
20 x 20 x 2.0		DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			

RHS						
Specification	Tubeline®	AS 1163				
Grade	350L0	C350L0/C450L0				
Designation d b t	Galvanized Finish					
mm mm mm	OneSteel	OneSteel	Smorgon Steel			
150 x 50 x 6.0		DuraGal®	SupaGal®			
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		DuraGal®	SupaGal®			
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			SupaGal®			
100 x 50 x 6.0		DuraGal®	SupaGal®			
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		DuraGal®	SupaGal®			
5.0		DuraGal®	SupaGal®			
4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
75 x 25 x 2.5		Galtube® Plus	SupaGal®			
2.0		Galtube® Plus	SupaGal®			
1.6		Galtube® Plus	SupaGal®			
65 x 35 x 4.0		DuraGal®	SupaGal®			
3.0		DuraGal®	SupaGal®			
2.5		DuraGal®	SupaGal®			
2.0		DuraGal®	SupaGal®			
50 x 25 x 3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	Galtube® Plus	DuraGal®	SupaGal®			
1.6	Galtube® Plus	DuraGal®	SupaGal®			
50 x 20 x 3.0		DuraGal®	SupaGal®			
2.5	Galtube® Plus	DuraGal®	SupaGal®			
2.0	Galtube® Plus	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					
mm mm	OneSteel	Smorgon Steel	OneSteel		Smorgon Steel	
165.1 x 5.4	Tubeline® - Galvanised	HotDipGal				
5.0	Tubeline® - Galvanised	HotDipGal				
3.5			Tubeline® - Galvanised			HotDipGal
3.4						
3.0						HotDipGal
139.7 x 5.4	Tubeline® - Galvanised	HotDipGal				
5.0	Tubeline® - Galvanised	HotDipGal				
3.5			Tubeline® - Galvanised			HotDipGal
3.0			Tubeline® - Galvanised			HotDipGal
114.3 x 5.4	Tubeline® - Galvanised	HotDipGal				
4.5	Tubeline® - Galvanised	HotDipGal				
3.6			Tubeline® - Galvanised			HotDipGal
3.2			Tubeline® - Galvanised			HotDipGal
3.1						
101.6 x 5.0	Tubeline® - Galvanised	HotDipGal				
4.0	Tubeline® - Galvanised	HotDipGal				
3.2			Tubeline® - Galvanised			HotDipGal
2.6			Tubeline® - Galvanised			HotDipGal
88.9 x 5.9						
5.0	Tubeline® - Galvanised	HotDipGal				
4.0	Tubeline® - Galvanised	HotDipGal				
3.2			Tubeline® - Galvanised			HotDipGal
2.6			Tubeline® - Galvanised			HotDipGal
76.1 x 5.9						
4.5	Tubeline® - Galvanised	HotDipGal				
3.6	Tubeline® - Galvanised	HotDipGal				
3.2			Tubeline® - Galvanised	Galtube® Plus		HotDipGal
2.6					DuraGal®	HotDipGal
2.3			Tubeline® - Galvanised			
60.3 x 4.5	Tubeline® - Galvanised	HotDipGal				
3.6	Tubeline® - Galvanised	HotDipGal				
2.9			Tubeline® - Galvanised	Galtube® Plus	DuraGal®	HotDipGal
2.3			Tubeline® - Galvanised			SupaGal®
48.3 x 5.4						
4.0	Tubeline® - Galvanised	HotDipGal				
3.2	Tubeline® - Galvanised	HotDipGal				
2.9			Tubeline® - Galvanised	Galtube® Plus	DuraGal®	HotDipGal
2.3			Tubeline® - Galvanised			SupaGal®
42.4 x 4.0						
3.2	Tubeline® - Galvanised	HotDipGal				
2.6	Tubeline® - Galvanised	HotDipGal				
2.0			Tubeline® - Galvanised	Galtube® Plus	DuraGal®	HotDipGal
33.7 x 4.0						
4.0	Tubeline® - Galvanised	HotDipGal				
3.2	Tubeline® - Galvanised	HotDipGal				
2.6			Tubeline® - Galvanised	Galtube® Plus	DuraGal®	HotDipGal
2.0			Tubeline® - Galvanised			SupaGal®
26.9 x 4.0						
3.2	Tubeline® - Galvanised	HotDipGal				
2.6	Tubeline® - Galvanised	HotDipGal				
2.3			Tubeline® - Galvanised	Galtube® Plus	DuraGal®	HotDipGal
2.0			Tubeline® - Galvanised			SupaGal®
21.3 x 3.2						
2.6	Tubeline® - Galvanised	HotDipGal				
2.0	Tubeline® - Galvanised	HotDipGal				

**Acknowledgment:** WTIA wishes to acknowledge the contribution of the WTIA SMART Building and Construction Industry Sector Group.



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<b>NDNP TECHNOLOGY DIFFUSION ACTIVITY # 27</b>	 Welding Technology Institute of Australia ABN 69 003 696 526 <b>NATIONAL DIFFUSION NETWORKS PROJECT TECHNOLOGY QUESTIONNAIRE Building &amp; Construction Industry Group “Structural Hollow Sections: Mill Galvanized Steel Products”</b>	<b>Document No:</b> 9.4.5QR-0002
		<b>Revision No:</b> Rev 0
		<b>Page 1 of 2</b> <b>Date:</b> 21 Nov 2005

As part of the WTIA National Diffusion Networks Project, the Building & Construction Industry Sector has identified the need to provide their customers with more information relating to galvanized products. The WTIA has prepared a Technical Guidance Note “Structural Hollow Sections: Mill Galvanized Steel Products” to compare the Australian Standard designated galvanized products with the proprietary trade names in the market. 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 recognised 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? \_\_\_\_\_

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**Objective 6: Continuous Improvement**

Please Identify areas where the document can be improved or return the document with your recommended additions/amendments. Alternatively, please use the area below to provide any additional comments.

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Respondents Name: \_\_\_\_\_ Company: \_\_\_\_\_ Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_ Email: \_\_\_\_\_ Date: \_\_\_\_\_

**Please Fax (02 9748 2858) or E-mail (j.baker@wtia.com.au) your response.**

**Your prompt response is appreciated.**

The WTIA has joined forces with industry and government to create a 3.5 million dollar Technology Support Centres Network. This network will assist industry to identify and exploit world's best technology and manufacturing methods to establish a vibrant Australian industry beyond 2006. Together we will be implementing a step by step process which will lead to ongoing viability and greater profitability for all concerned:



- (1) Determine your technological and manufacturing needs;
- (2) Identify world's best practice;
- (3) Draw upon the network to implement world's best practice at your site

