



Sheet and Coil

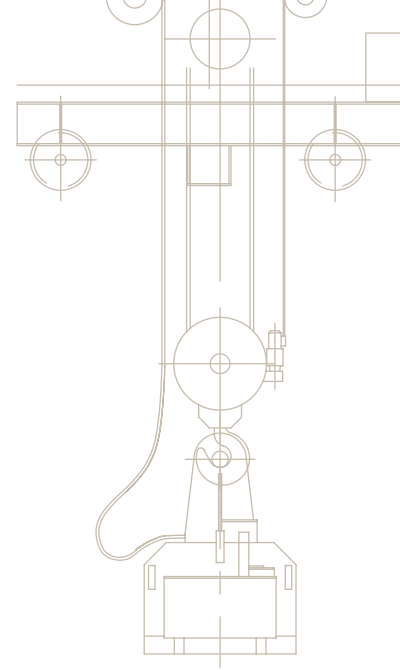
product guide



Sheet and Coil

product guide

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BlueScope Steel's sheet and coil product range – an Australian benchmark

BlueScope Steel is proud of its comprehensive range of sheet and coil products - hot rolled coil, cold rolled coil, metallic coated coil and pre-painted coil.

This sheet and coil product guide provides you and your customers with the information required to choose the "best fit" product from our sheet and coil range for your end use application.

BlueScope Steel's sheet and coil products are considered the benchmark by Australia's diverse manufacturing industry for quality, delivery and supply flexibility, product range and technical support. And being made in Australia, they're the only sheet and coil products designed for and tested to perform in Australian conditions.

Quality Assured

BlueScope Steel stands behind its products by certifying their compliance to independently established Australian Standards. These standards cover such matters as the steel's chemical composition and mechanical properties, associated testing, inspection, certification procedures, dimensional tolerances and coatings application.

All products in the sheet and coil range comply with the dimensional tolerances specified in AS/NZS 1365:1996. Additionally, our hot rolled coil products are manufactured to Australian Standard AS/NZS 1594:2002 and most cold rolled coil products in the sheet and coil range are manufactured to AS/NZS 1595:1998. The subsequently applied metallic coating thickness conforms to AS 1397: 2001 while paint coatings conform to AS/NZS 2728:2007 in the appropriate Type.

Our test certificates provide pertinent information regarding the manufacture and testing of all sheet and coil products. This recorded information, in conjunction with unique product identity for each mill coil, provides complete product traceability to support customers' quality systems.

BlueScope Steel also holds ISO Quality Management System Accreditation (ISO 9001), a third party accreditation that further assures the quality of our products.

BlueScope Steel's metallic coated sheet and coil products are rolled and sold according to their base metal thickness (BMT), as specified in AS/NZS 1365: 1996. The metallic coating thickness is additional to the base metal thickness. Competitors' products may include the base metal and metallic



coating in the total coated thickness measurement of their metallic coated products, which may mean that the product will not meet design requirements or appropriate Australian Standards.

Quality Designed

BlueScope Steel's metallic and pre-painted sheet and coil products are tested in Australian conditions for many years in evaluation programs, before and after commercialisation. No other steel company designs and tests sheet and coil products for Australian conditions.

Our in-house research team monitors more than 19,000 steel test panels at seven outdoor test sites around Australia, collecting data regarding corrosion and weathering performance. BlueScope Steel has over 30 years of exposure data. This forms the basis for continual improvements to the performance of the coatings applied to our sheet and coil products.



Local Supply

BlueScope Steel's range of sheet and coil products is locally produced and distributed, making supply flexibility and short lead times possible. This means customers can optimise inventory levels for improved cash flow and respond effectively to market volatility, such as unexpected demands for project fast-tracking or changes to specifications.

BlueScope Steel has developed a range of sheet and coil supply packages which have been tailored to meet the needs of specific markets such as mining, automotive components and residential construction.

Our comprehensive range of sheet and coil products can be purchased from an Australia-wide network of distributors who offer a range of value-adding services. For the location of your nearest sheet and coil distributor, use the "Supplier Locator" section of the BlueScope Steel web site at www.bluescopesteel.com.au.

Technical Support

BlueScope Steel has a market-based Technical Service team that can advise customers about the most suitable products in the sheet and coil range for particular applications, manufacturing processes or environments.

The team is also available to work in partnership with you and your customers to explore opportunities to develop new sheet and coil product grades or applications.

Advice can also be provided regarding issues that occur post-sales such as press forming, joining and fastening or shearing and slitting. The Technical Service team is an experienced, local technical resource you and your customers can rely on.

Comprehensive Product Range

The comprehensive sheet and coil product range is available in extensive width, thickness and coating combinations. Some products can further be specified to either Class A (standard) or Class B (tighter tolerance) Australian Standard tolerances for width, thickness or length. This means that design efficiencies and cost savings can be realised by choosing a product that is the "best fit" for an application or process.

Details of BlueScope Steel's sheet and coil product range are contained in the following sections of the Product Guide.





Sheet and coil product range

BlueScope Steel's sheet and coil product range comprises - hot rolled coil, cold rolled coil, metallic coated coil and pre-painted coil. The table below features the various grade designations and brands associated with the product range.

BlueScope Steel hot rolled coil	BlueScope Steel cold rolled coil	BlueScope Steel metallic coated coil	BlueScope Steel pre-painted coil
HA200 steel	CA1010H-E steel	GALVABOND® steel	COLORBOND® Coolmax® steel
HA250 steel	CA180S-G steel	GALVASPAN® steel	COLORBOND® Insulated Panel steel
HA300 steel	CA220S-G steel	ZINCALUME® steel	COLORBOND® Metallic steel
HA350 steel	CA260S-G steel	TRUECORE® steel	COLORBOND® Permagard® steel
HA300/1 steel	CA2S-E steel	DECKFORM® steel	COLORBOND® Stainless steel
XTRAFORM® steel	CA3SN-G steel	ZINC HI-TEN® steel	COLORBOND® steel
HA1 steel	CA4A-G steel	ZINCFORM® steel	COLORBOND® Ultra steel
BRIGHTFORM® steel	CA5SN-E steel	ZINCANNEAL® steel	COLORBOND® XFP steel
HA3 steel	CA85T-G steel		COLORBOND® XGD steel
HA4N-P steel	DRUMSTOCK® steel		AQUAPLATE® steel
HA1006 steel	CA250T-G steel		DRUMSTOCK® Pre-Painted steel
HA1010 steel	CM350-G steel		XHW Exterior Hot Water Pre-Painted steel
XK15B28 steel	CU200T-G steel		XMA Exterior Manufactured Articles Pre-Painted steel
HA70T-P steel	CV2S1 steel		GMA General Manufactured Articles Pre-Painted steel
	CV4S2 steel		IFS Interior Furniture and Shelving Pre-Painted steel
			POM Primer Only Material steel
			SWP Sign Writing Panel Pre-Painted steel
			SGA Superior Gloss Articles Pre-Painted steel

Naming convention

BlueScope Steel's sheet and coil products are assigned 'codes' or designations that describe the product type, performance and other related product characteristics. These designations have been adopted from the Australian Standards.

Hot rolled coil (formable grades)– product nomenclature

Product type	Steel type	Degree of forming	Surface condition	Surface finish
H – Hot rolled	A – Aluminium killed	1 – Commercial Forming	S – Skin passed	P – Pickled
	U – Unspecified deoxidation	3 – Deep Drawing	N – Non ageing	
		4 – Extra Deep Drawing		
Example: H	A	4	N	P

Hot rolled coil (hardness grades)– product nomenclature

Product type	Steel type	Minimum hardness (HRB)	Achieved by temper rolling	Surface finish
H – Hot rolled	A – Aluminium killed	Number	T – Temper Rolling	P – Pickled
	U – Unspecified deoxidation			
Example: H	A	70	T	P

Hot rolled coil (structural grades) – product nomenclature

Product type	Steel type	Minimum yield strength (MPa)	Surface condition	Surface finish
H – Hot rolled	A – Aluminium killed	Number	S – Skin passed	P – Pickled
	U – Unspecified deoxidation			
	W – Weather resistant			
	K – Silicon/Aluminium killed			
Example: H	A	300		

Hot rolled coil (analysis grades) – product nomenclature

Product type	Steel type	Unalloyed carbon steel	Carbon indicator (Approx. mean of carbon range as a %)	Surface condition	Surface finish
H – Hot rolled	A – Aluminium killed	Refers to plain carbon steel		S – Skin passed	P – Pickled
	U – Unspecified deoxidation				
	K – Silicon/Aluminium killed				
Example: H	A	10	06		

Cold rolled coil (formable grades)– product nomenclature

Product type	Steel type	Degree of forming	Surface condition	Stabalised grade	Surface quality
C – Cold rolled	A – Aluminium killed	2 – Commercial forming	S – Skin passed	N – Non ageing	G – General purpose
	U – Unspecified deoxidation	3 – Deep drawing	A – Annealed not skin passed		E – Exposed
		4 – Extra deep drawing			
		5 – Critical Drawing			
Example: C	A	2	S		E

Cold rolled coil (hardness grades) – product nomenclature

Product type	Steel type	Minimum hardness (HRB)	Achieved by temper rolling	Surface quality
C – Cold rolled	A – Aluminium killed	Number	T – Temper rolling	G – General purpose
	U – Unspecified deoxidation			E – Exposed
Example: C	A	85	T	G

Cold rolled coil (strength grades)– product nomenclature

Product type	Steel type	Minimum yield strength (MPa)	Surface condition	Surface quality
C – Cold rolled	A – Aluminium killed	Number	S – Skin passed	G – General purpose
	U – Unspecified deoxidation		T – Temper rolling	
	W – Weather resistant			
Example: C	U	200	T	G

Metallic coated coil (structural grades)– product nomenclature

Product name	Product type	Minimum yield strength (MPa)	Surface condition
ZINCFORM® steel ZINC-HI-TEN® steel GALVSPAN® steel ZINCALUME® steel	G – Continuously heat-treated and hot-dip coated	Number	S – Skin passed
Examples: ZINCFORM® steel	G	300	
ZINC-HI-TEN® steel	G	450	
ZINCALUME® steel	G	550	

Metallic coated coil (formable grades)– product nomenclature

Product name	Product type	Degree of forming	Stabalised grade	Surface condition
GALVASKIN® steel GALVABOND® steel ZINCALUME® steel ZINCANNEAL® steel	G – Continuously heat-treated and hot-dip coated	2 – Commercial forming 3 – Drawing	N – Non ageing	S – Skin passed
Examples: GALVABOND® steel	G	2		
ZINCALUME® steel	G	2	N	

COLORBOND® steel – product nomenclature

COLORBOND® steel	
COLORBOND® steel	Exterior roofing and walling
XFP	Fence infill panels and rails
XGD	Garage doors
COLORBOND® Permaguard® insulated panel steel	Coolroom panels
Metallic steel	Premium aesthetic finish
Ultra steel	Roofing and walling, severe coastal and industrial
Stainless steel	Extreme environments
AQUAPLATE® steel	Water storage

Pre-painted coil – product nomenclature

Pre-painted steel	
XMA	Exterior Manufactured Articles
XHW	Hot Water Heaters
SGA	Superior Gloss Articles
SWP	Sign Writing Panels
IFS	Interior Furniture and Shelving
GMA	General Manufactured Articles
POM	Primed Only Material

General descriptions for sheet and coil products

Each product in the sheet and coil range performs differently and is suited to different end use applications. The following tables summarise key features and manufacturing performance, standards and dimensional details pertaining to each product in the BlueScope Steel sheet and coil range.

Hot rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
HA200 steel	Hot rolled structural steel with a guaranteed minimum yield strength of 200 MPa, with good ductility, and skin passed for minimum coil break and improved flatness.	BlueScope Steel hot rolled (structural grade)	Bending.....3 Drawing.....2* Pressing.....2* Roll forming.....3 Welding.....5 Painting (pre-treatment).....5 Galvanising.....5	Light structural members, shelving, tanks and racking	AS/NZS 1594:2002 AS/NZS 1365:1996	1.5 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
HA250 steel	Structural steel with a minimum yield strength of 250 MPa with good ductility.	BlueScope Steel hot rolled (structural grade)	Bending.....3 Drawing.....2* Pressing.....2* Roll forming.....4 Welding.....5 Painting (pre-treatment).....5 Galvanising.....5	Structural sections, light poles, guard rails and gas cylinders	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
HA300 steel	Structural steel with a minimum yield strength of 300 MPa with good ductility.	BlueScope Steel hot rolled (structural grade)	Bending.....3 Drawing.....2* Pressing.....2* Roll forming.....3 Welding.....5 Painting (pre-treatment).....5 Galvanising.....5	Structural sections, light poles, guard rails and automotive components	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
HA350 steel	Structural steel with a minimum yield strength of 350 MPa and good ductility.	BlueScope Steel hot rolled (structural grade)	Bending.....3 Drawing.....2* Pressing.....2* Roll forming.....3 Welding.....5 Painting (pre-treatment).....5 Galvanising.....5	Structural sections, racking, truck chassis and gas cylinders	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 6	Up to 1700	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)

NB: pickled and oiled availability ≤ 6.00mm thick to ≤ 1530mm wide

*surface scale adversely affects die performance of this product, pickled recommended

Hot rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
HA300/1 steel	Hot rolled structural steel with a guaranteed minimum yield strength of 300 MPa, a guaranteed minimum tensile strength of 430 MPa, with good ductility.	BlueScope Steel hot rolled (structural grade)	Bending.....3 Drawing.....2* Pressing.....2* Roll forming.....3 Welding.....5 Painting (pre-treatment).....5 Galvanising.....5	Suitable for the manufacture of thin walled pressure vessels such as LPG vessels and small air receivers	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
XTRAFORM® 300 steel	Hot rolled steel suitable for severe forming and bending with a guaranteed minimum yield strength of 300 MPa.	BlueScope Steel hot rolled (extra formable grade)	Bending.....5 Drawing.....4* Pressing.....4* Roll forming.....5 Welding.....4 Painting (pre-treatment).....5 Galvanising.....5	Automotive components	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 6	Up to 1530	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
XTRAFORM® 400 steel	Extra formable, structural steel suitable for severe forming and bending with a guaranteed minimum yield strength of 380 MPa.	BlueScope Steel hot rolled (extra formable grade)	Bending.....5 Drawing.....3* Pressing.....3* Roll forming.....5 Welding.....4 Painting (pre-treatment).....5 Galvanising.....5	Automotive components and gas cylinders	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 6	Up to 1530	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
XTRAFORM® 500 steel	Hot rolled extra formable, structural steel suitable for severe forming and bending with a guaranteed minimum yield strength of 480 MPa.	BlueScope Steel hot rolled (extra formable grade)	Bending.....5 Drawing.....3* Pressing.....3* Roll forming.....5 Welding.....4 Painting (pre-treatment).....5 Galvanising.....NR	Automotive components	AS/NZS 1594:2002 AS/NZS 1365:1996	2.5 to 6	Up to 1530	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)

NB: pickled and oiled availability ≤ 6.00mm thick to ≤ 1530mm wide

*surface scale adversely affects die performance of this product, pickled recommended

Hot rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
HA1 steel	Formable, commercial forming steel suitable for simple forming and bending operations.	BlueScope Steel hot rolled (formable grade)	Bending..... 4 Drawing3* Pressing3* Roll forming 4 Welding..... 5 Painting (pre-treatment)..... 5 Galvanising 5	Shelving, light structural members, tanks, guard rails and furniture	AS/NZS 1594:2002 AS/NZS 1365:1996	1.5 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
BRIGHTFORM® steel	Formable, commercial forming steel suitable for simple forming and bending operations.	BlueScope Steel hot rolled (formable grade)	Bending..... 4 Drawing3* Pressing3* Roll forming 4 Welding..... 5 Painting (pre-treatment)..... 5 Galvanising 5	Tubing, shelving, simple pressings, hidden appliance panels and distributor stock	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 3	Up to 1510	Pickled and oiled.
HA3 steel	Formable steel suitable when pickled for medium drawing and heavy pressing operations. Available skin passed for minimum coilbreak and improved flatness.	BlueScope Steel hot rolled (formable grade)	Bending..... 5 Drawing4* Pressing4* Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5 Galvanising 5	Agricultural machinery, automotive components, sealed unit housings, mower parts, brackets and furniture	AS/NZS 1594:2002 AS/NZS 1365:1996	1.5 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
HA4N-P steel	Formable, pickled, extra deep drawing steel guaranteed non ageing, suitable for severe drawing and pressing.	BlueScope Steel hot rolled (formable grade)	Bending..... 5 Drawing5* Pressing5* Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5 Galvanising 5	Automotive components, mower parts	AS/NZS 1594:2002 AS/NZS 1365:1996	2 to 6	Up to 1500	Pickled and oiled. (but subject to dimensional restrictions)

NB: pickled and oiled availability ≤ 6.00mm thick to ≤ 1530mm wide

*surface scale adversely affects die performance of this product, pickled recommended

Hot rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
HA1006 steel	Carbon steel with a guaranteed chemical composition, good ductility and good weldability.	BlueScope Steel hot rolled (analysis grade)	Bending 4 Drawing 3* Pressing 3* Roll forming 4 Welding 5 Painting (pre-treatment) 5 Galvanising 5	Vitreous enamelled hot water cylinders	AS/NZS 1594/2002 AS/NZS 1365/1996	1.5 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
HA1010 steel	Carbon steel with a guaranteed chemical composition, good ductility and good weldability.	BlueScope Steel hot rolled (analysis grade)	Bending 3 Drawing 2* Pressing 2* Roll forming 3 Welding 5 Painting (pre-treatment) 5 Galvanising 5	Gas cylinders and hot water system cylinders	AS/NZS 1594:2002 AS/NZS 1365:1996	1.6 to 12.7	Up to 1800	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
XK15B28 steel	Carbon steel with a guaranteed chemical composition. Suitable for applications requiring good wear resistance after heat treatment.	BlueScope Steel hot rolled (analysis grade)	Bending 3 Drawing 2* Pressing 2* Roll forming 3 Welding 5 Painting (pre-treatment) 5 Galvanising 5	Ground engaging tools, plough discs and wear abrasion applications	AS/NZS 1594:2002 AS/NZS 1365:1996	2 to 8	Up to 900	As rolled. Optional, pickled and oiled. (conditions may be subject to dimensional restrictions)
HA70T-P steel	Hot rolled, pickled and temper rolled steel with guaranteed minimum hardness of 70 HRB, suitable for limited bending.	BlueScope Steel hot rolled (hardness grade)	Bending 3 Drawing NR* Pressing 1 Roll forming 3 Welding 5 Painting (pre-treatment) 5 Galvanising NR	Racking, shelving, automotive components	AS/NZS 1365:1996	1.4 to 3	Up to 1220	Not oiled. Optional, oiled. (conditions may be subject to dimensional restrictions)

NB: pickled and oiled availability ≤ 6.00mm thick to ≤ 1530mm wide

*surface scale adversely affects die performance of this product, pickled recommended

Cold rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
CA1010H-E steel	Cold rolled steel, supplied in the as rolled full-hard condition with a double-sided exposed surface.	BlueScope Steel cold rolled (analysis grade)	Bending.....1 Drawing.....NR Pressing.....NR Roll forming.....NR Welding.....5 Painting (pre-treatment).....5	Bearings, hardened washers and brushes	AS/NZS 1365:1996	0.7 to 3.2	Up to 960	Surface finish as cold-rolled. Optional: oiled; not oiled mill edge; trimmed edge. (Optional conditions may be subject to dimensional restrictions)
CA180S-G steel	Supplier negotiated cold rolled, skin passed, deep drawing steel. Guaranteed non ageing and free from stretcher strain, with a general purpose finish.	BlueScope Steel cold rolled (formable grade)	Bending.....5 Drawing.....4 Pressing.....4 Roll forming.....5 Welding.....5 Painting (pre-treatment).....5	Non-exposed severely drawn parts for automotive and appliance end uses	AS/NZS 1365:1996	0.7 to 1	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CA220S-G steel	Cold rolled, skin passed, deep drawing steel. Guaranteed minimum yield strength of 210 MPa, non ageing and free from stretcher strain, with a general purpose surface.	BlueScope Steel cold rolled (formable grade)	Bending.....5 Drawing.....4 Pressing.....5 Roll forming.....5 Welding.....5 Painting (pre-treatment).....5	Non-exposed severely drawn parts for automotive and appliance end uses	AS/NZS 1595:1998 AS/NZS 1365:1996	0.6 to 2	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CA260S-G steel	Cold rolled, skin passed, deep drawing steel. Guaranteed minimum yield strength of 250 MPa, non ageing and free from stretcher strain, with a general purpose surface.	BlueScope Steel cold rolled (formable grade)	Bending.....5 Drawing.....4 Pressing.....5 Roll forming.....5 Welding.....5 Painting (pre-treatment).....5	Non-exposed automotive panels	AS/NZS 1595:1998 AS/NZS 1365:1996	0.6 to 2.5	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CA2S-E steel	Skin passed commercial drawing steel for moderate forming and pressing with a surface suitable for exposed applications.	BlueScope Steel cold rolled (formable grade)	Bending.....5 Drawing.....3 Pressing.....3 Roll forming.....5 Welding.....5 Painting (pre-treatment).....5	Office furniture and shelving	AS/NZS 1595:1998 AS/NZS 1365:1996	0.5 to 3.2	Up to 1530	Surface finish matt oiled. Optional: lustre; not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)

NR: not recommended

Cold rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
CA3SN-G steel	Skin passed deep drawing steel guaranteed non ageing and free from stretcher strain with a general purpose surface.	BlueScope Steel cold rolled (formable grade)	Bending..... 5 Drawing 4 Pressing 5 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Non-exposed drawn parts for automotive and appliance end uses	AS/NZS 1595:1998 AS/NZS 1365:1996	0.6 to 3.2	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CA4A-G steel	Cold rolled, non skin passed extra deep drawing steel suitable for severely drawn non-exposed applications where stretcher strain marking is not objectionable.	BlueScope Steel cold rolled (formable grade)	Bending..... 5 Drawing 5 Pressing 5 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Non-exposed severe pressings such as automotive oil pans	AS/NZS 1595:1998 AS/NZS 1365:1996	0.6 to 2.2	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CA5SN-E steel	Skin passed critical drawing steel suitable for severely drawn components in exposed applications with a minimum of surface rework. Guaranteed non ageing and free from stretcher strain.	BlueScope Steel cold rolled (formable grade)	Bending..... 5 Drawing 5 Pressing 5 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Exposed severely drawn parts for automotive and appliance end uses	AS/NZS 1595:1998 AS/NZS 1365:1996	0.6 to 3	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CA85T-G steel	Guaranteed minimum hardness of 85 HRB suitable for flat blanking.	BlueScope Steel cold rolled (hardness grade)	Bending..... 1 Drawing NR Pressing NR Roll forming 1 Welding 5 [†] Painting (pre-treatment)..... 5	Seals, washers, brackets and hinges	AS/NZS 1595:1998 AS/NZS 1365:1996	0.4 to 3.2	Up to 1530	Surface finish as cold-rolled oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
DRUMSTOCK® steel	Cold rolled skin passed steel produced specifically for the container market.	BlueScope Steel cold rolled (hardness grade)	Bending..... 5 Drawing 2 Pressing 2 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Drum and pail bodies and ends	AS/NZS 1365:1996	0.6 to 1.4	Up to 1220	Surface finish matt not oiled trimmed edge. Optional: mill edge. (Optional conditions may be subject to dimensional restrictions)

NR: not recommended

[†]design must allow for some strength reduction near welds

Cold rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
CA250T-G steel	Cold rolled and temper-rolled structural steel with a guaranteed minimum yield strength of 250 MPa suitable for general fabrication and welding.	BlueScope Steel cold rolled (structural grade)	Bending..... 4 Drawing..... 2 Pressing..... 2 Roll forming..... 5 Welding..... 5 Painting (pre-treatment)..... 5	Guard rails and structural sections	AS/NZS 1365:1996	0.7 to 3	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CM350-G steel	Cold rolled, high strength, low alloy steel combining high yield strength. Guaranteed 350 MPa minimum yield strength with good formability.	BlueScope Steel cold rolled (structural grade)	Bending..... 5 Drawing..... 3 Pressing..... 3 Roll forming..... 5 Welding..... 5 Painting (pre-treatment)..... 5	Guard rails and structural sections	AS/NZS 1365:1996	0.7 to 2	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CU200T-G steel	Cold rolled and temper-rolled steel with a guaranteed minimum yield strength of 200 MPa suitable for general fabrication and welding.	BlueScope Steel cold rolled (structural grade)	Bending..... 5 Drawing..... 2 Pressing..... 2 Roll forming..... 5 Welding..... 5 Painting (pre-treatment)..... 5	Tubing and general pressing	AS/NZS 1365:1996	0.5 to 3.2	Up to 1530	Surface finish matt oiled. Optional: lustre; not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)
CV2S1 steel	Cold rolled and skin passed commercial drawing steel. Guaranteed for general purpose vitreous enamelling with appropriate enamelling practices. Unsuitable for direct on cover coat, or two coat, one fire white enamels.	BlueScope Steel cold rolled (vitreous enamelling grade)	Bending..... 5 Drawing..... 3 Pressing..... 3 Roll forming..... 5 Welding..... 5 Painting (pre-treatment)..... 5	Stove liners and heaters	AS/NZS 1365:1996	0.5 to 3.2	Up to 1530	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)

NR: not recommended

Cold rolled coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
CV4S2 steel	Cold rolled, skin passed extra deep drawing steel. Guaranteed free from ageing and stretcher strain during forming. For use in deep drawn vitreous enamelled parts. Careful selection of enamel type and strict control of all aspects of pre-treatment, enamel preparation, application, and firing are required to achieve a high level of enamel adherence and surface appearance.	BlueScope Steel cold rolled (vitreous enamelling grade)	Bending 5 Drawing 5 Pressing 5 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Bath tubs, stove hobbs, heaters and architectural panels	AS/NZS 1365:1996	0.75 to 1.6	Up to 1510	Surface finish matt oiled. Optional: not oiled trimmed edge; mill edge. (Optional conditions may be subject to dimensional restrictions)

NR: not recommended

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
GALVABOND® G2 steel G2S steel	A hot-dipped zinc coated commercial forming steel with a spangled surface, suitable for general manufacturing, widely available as distributor stock. Product is suitable for moderate drawing applications and is suitable for lockseaming up to 1.6mm thick. G2S steel – is skin passed to improve surface quality. Under normal storage conditions it will be free of fluting for 3 months after galvanising.	BlueScope Steel metallic coated (formable grade)	Bending..... 5 Drawing 3 Pressing 3 Roll forming 5 Lock forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Tube, air-conditioning ducts, air-conditioning panels, meter box, trailers, partitioning systems, cable trays, scaffolding planks, rendering mesh, feeder troughs	AS/NZS 1365:1996 AS 1397:2001	≥0.3 to ≤3.2	Up to 1525	Surface finish spangled. Optional: minimal spangle passivated; unpassivated/oiled. (Optional conditions may be subject to dimensional restrictions)
GALVABOND® G3N steel G3NS steel	GALVABOND® 3N steel is a hot-dipped zinc coated deep drawing steel with a spangled surface, guaranteed non ageing and free from stretcher strain.	BlueScope Steel metallic coated (formable grade)	Bending..... 5 Drawing 4 Pressing 3 Roll forming 5 Lock forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Automotive panels and components, drawn appliance panels and components	AS/NZS 1365:1996 AS 1397:2001	0.5 to ≤1.6	Up to 1525	Surface finish spangled. Optional: minimal spangle passivated; unpassivated/oiled. (Optional conditions may be subject to dimensional restrictions)
GALVASPAN® G450 steel	G450 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 450 MPa. Suitable for roll forming to a minimum internal diameter of 4t.	BlueScope Steel metallic coated (structural grade)	Bending..... 3 Drawing NR Pressing NR Roll forming 3 Lock forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Roll formed sections for structural applications	AS/NZS 1365:1996 AS 1397:2001	≥1.5 to ≤3.2	Up to 1350	Surface finish spangled passivated
GALVASPAN® G500 steel	G500 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 500 MPa. Suitable for roll forming to a minimum internal diameter of 4t.	BlueScope Steel metallic coated (structural grade)	Bending..... 2 Drawing NR Pressing NR Roll forming 3 Lock forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Roll formed sections for structural applications	AS/NZS 1365:1996 AS 1397:2001	>1 to <1.5	Up to 1350	Surface finish spangled passivated

NR: not recommended

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
GALVSPAN® G550 steel	G550 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 550 MPa. Under appropriate roll forming conditions, suitable for roll forming to a minimum internal diameter of 4t.	BlueScope Steel metallic coated (structural grade)	Bending 1 Drawing NR Pressing NR Roll forming 3 Lock forming 5 Welding 5 Painting (pre-treatment) 5	Roll formed sections for structural applications	AS/NZS 1365:1996 AS 1397:2001	0.3 to ≤ 1	Up to 1220	Surface finish spangled passivated.
ZINCALUME® G2N steel G2NS steel	G2N is a hot-dipped zinc/aluminium alloy-coated commercial forming steel with a spangled surface. It is suitable for moderate drawing and pressing, guaranteed non ageing and free from stretcher strain. G2NS steel is skin passed to improve surface quality. Skin passed material is used to supply COLORBOND® steel and is not available without the COLORBOND® steel paint finish.	BlueScope Steel metallic coated (structural grade)	Bending 5 Drawing 3 Pressing 3 Roll forming 5 Welding 4 Painting (pre-treatment) 5	Garage door panels, hot water systems, laundry appliances	AS/NZS 1365:1996 AS 1397:2001	0.6 to ≤ 0.75	Up to 1100	Surface finish spangled passivated/ resin coated.
ZINCALUME® G250 steel G250S steel	G250 steel is a hot-dipped zinc/aluminium alloy-coated structural steel with a regular spangled surface and guaranteed minimum yield strength of 250 MPa with good ductility. Suitable for roll forming to an internal diameter of 0t. G250S steel is skin passed to improve surface quality. It is normally available only as the substrate for COLORBOND® steel.	BlueScope Steel metallic coated (structural grade)	Bending 5 Drawing 2 Pressing 1 Roll forming 5 Welding 5 Painting (pre-treatment) 5	Structural sections, rain water goods	AS/NZS 1365:1996 AS 1397:2001	1.2 to ≤ 1.6	Up to 1000	Surface finish spangled passivated/ resin coated.

NR: not recommended

†design must allow for some strength reduction near welds

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
ZINCALUME® G300 steel G300S steel	G300 steel is a hot-dipped zinc/aluminium alloy-coated structural steel with a regular spangled surface and guaranteed minimum yield strength of 300 MPa. Suitable for roll forming to an internal diameter of 1t. G300S steel is skin passed to improve surface quality. Skin passed material is used to supply COLORBOND® steel and is not available without the COLORBOND® steel paint finish.	BlueScope Steel metallic coated (structural grade)	Bending..... 5 Drawing..... 2 Pressing..... 2 Roll forming..... 5 Welding..... 4 Painting (pre-treatment)..... 5	G300 – house framing, RWG, gutters and garden sheds G300S – Painted roll formed decking, RWG, tubing, garage door, gutters and signs (general COLORBOND® steel applications)	AS/NZS 1365:1996 AS 1397:2001	≥0.3 to ≤1.2	Up to 1235	Surface finish spangled passivated/ resin coated.
ZINCALUME® G450 steel	G450 steel is a hot-dipped zinc/aluminium alloy-coated structural steel with a spangled surface and a guaranteed minimum yield strength of 450 MPa with limited ductility. Suitable for roll forming to a minimum internal diameter of 4t.	BlueScope Steel metallic coated (structural grade)	Bending..... 3 Drawing..... NR Pressing..... NR Roll forming..... 4 Welding..... 4 Painting (pre-treatment)..... 5	Structural sections	AS/NZS 1365:1996 AS 1397:2001	≥1.5 to ≤1.6	Up to 1000	Surface finish spangled passivated/ resin coated.
ZINCALUME® G500 steel G500S steel	A hot-dipped zinc/aluminium alloy-coated structural steel with a spangled surface and a guaranteed minimum yield strength of 500 MPa with limited ductility. Suitable for roll forming to a minimum internal diameter of 4t. G500S steel skin passed to improve surface quality. Skin passed material is used to supply COLORBOND® steel and is not available without the COLORBOND® steel paint finish.	BlueScope Steel metallic coated (structural grade)	Bending..... 2 Drawing..... NR Pressing..... NR Roll forming..... 3 Welding..... 4 Painting (pre-treatment)..... 5	Patio posts	AS/NZS 1365:1996 AS 1397:2001	1 to <1.5	Up to 1220	Surface finish spangled passivated/ resin coated.

NR: not recommended

†design must allow for some strength reduction near welds

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
ZINCALUME® G550 steel G550S steel	G550 steel is a hot-dipped zinc/ aluminium alloy-coated structural steel with a spangled surface and a guaranteed minimum yield strength of 550 MPa with limited ductility. Suitable for roll forming to a minimum internal diameter of 4t. G550S steel skin passed to improve surface quality. Skin passed material is used to supply COLORBOND® steel and is not available without the COLORBOND® steel paint finish.	BlueScope Steel metallic coated (structural grade)	Bending..... 1 DrawingNR PressingNR Roll forming 3 Welding..... 4 Painting (pre-treatment)..... 5	Roll formed decking and walling	AS/NZS 1365:1996 AS 1397:2001	≥ 0.3 to ≤ 1	Up to 1235	Surface finish spangled passivated/ resin coated.
TRUECORE® G450 steel	TRUECORE® G450 steel is manufactured using blue tinted resin and metal coated steel. It is specifically designed for the residential house framing market.	BlueScope Steel metallic coated (structural grade)	Bending..... 3 DrawingNR PressingNR Roll forming 4 Welding.....4 [†] Painting (pre-treatment)...NR	Residential house framing where the product is not visible	AS/NZS 1365:1996 AS 1397:2001	1.5 to 1.6	Up to 1000	Surface finish spangled passivated/ resin coated.
TRUECORE® G500 steel	TRUECORE® G500 steel is manufactured using blue tinted resin and metal coated steel. It is specifically designed for the residential house framing market.	BlueScope Steel metallic coated (structural grade)	Bending..... 2 DrawingNR PressingNR Roll forming 3 Welding.....4 [†] Painting (pre-treatment)...NR	Residential house framing where the product is not visible	AS/NZS 1365:1996 AS 1397:2001	1.15 to 1.2	Up to 1200	Surface finish spangled passivated/ resin coated.
TRUECORE® G550 steel	TRUECORE® G550 steel is manufactured using blue tinted resin and metal coated steel. It is specifically designed for the residential house framing market.	BlueScope Steel metallic coated (structural grade)	Bending..... 1 DrawingNR PressingNR Roll forming 3 Welding.....4 [†] Painting (pre-treatment)...NR	Residential house framing where the product is not visible	AS/NZS 1365:1996 AS 1397:2001	0.42 to 1	Up to 1200	Surface finish spangled passivated/ resin coated.

NR: not recommended

[†]design must allow for some strength reduction near welds

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
DECKFORM® G550 steel	DECKFORM® G550 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 550 MPa. Suitable for roll forming to a 4t minimum internal diameter.	BlueScope Steel metallic coated (structural grade)	Bending.....1 Drawing.....NR Pressing.....NR Roll forming.....3 Lock forming.....5 Welding.....5 Painting (pre-treatment).....5	Structural decking	AS/NZS 1365:1996 AS 1397:2001	0.6 to 1	Up to 1060	Surface finish spangled passivated.
ZINC HI-TEN® G450 steel G450S steel	G450 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 450 MPa. ZINC HI-TEN® G450S steel is skin passed to improve surface quality. The skin passed product is only available up to 2mm thick.	BlueScope Steel metallic coated (structural grade)	Bending.....3 Drawing.....NR Pressing.....NR Roll forming.....4 Welding.....5 Painting (pre-treatment).....5	Purlins, structural decking, scaffolding	AS/NZS 1365:1996 AS 1397:2001	≥ 1.5 to ≤3.2	Up to 1250	Surface finish spangled passivated. Optional: minimal spangle. (Optional conditions may be subject to dimensional restrictions)
ZINC HI-TEN® G500 steel G500S steel	A hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 500 MPa. Suitable for roll forming to a 4t minimum internal diameter. ZINC HI-TEN® G500S steel is skin passed to improve surface quality.	BlueScope Steel metallic coated (structural grade)	Bending.....2 Drawing.....NR Pressing.....NR Roll forming.....3 Welding.....5 Painting (pre-treatment).....5	Structural sections, house framing, agricultural posts and trellises	AS/NZS 1365:1996 AS 1397:2001	> 1 to <1.5	Up to 1250	Surface finish spangled passivated. Optional: minimal spangle. (Optional conditions may be subject to dimensional restrictions)
ZINC HI-TEN® G550 steel G550S steel	A hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 550 MPa. Suitable for roll forming to a 4t minimum internal diameter under appropriate conditions. ZINC HI-TEN® G550S steel is skin passed to improve surface quality.	BlueScope Steel metallic coated (structural grade)	Bending.....1 Drawing.....NR Pressing.....NR Roll forming.....3 Welding.....5 Painting (pre-treatment).....5	Roll formed decking and walling, fencing posts and rails	AS/NZS 1365:1996 AS 1397:2001	≥ 0.3 to ≤1	Up to 1250	Surface finish spangled.

NR: not recommended

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
ZINCFORM® G250 steel G250S steel	G250 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 250 MPa, with good ductility. Suitable for severe roll forming. G250S steel is skin passed to improve surface quality. The skin passed product is only available up to 2mm thick.	BlueScope Steel metallic coated (structural grade)	Bending..... 5 Drawing 3 Pressing 2 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Roll formed structural sections	AS/NZS 1365:1996 AS 1397:2001	> 0.8 to 3.2	Up to 1485	Surface finish spangled passivated. Optional: minimal spangle. (Optional conditions may be subject to dimensional restrictions)
ZINCFORM® G300 steel G300S steel	A hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 300 MPa, with good ductility. Suitable for roll forming to an internal diameter of 1t minimum. G300S steel is a skin passed steel for improved surface quality. Only available up to 1.60mm thick.	BlueScope Steel metallic coated (structural grade)	Bending..... 5 Drawing 3 Pressing 2 Roll forming 5 Welding..... 5 Painting (pre-treatment)..... 5	Roll formed structural sections, nail plate	AS/NZS 1365:1996 AS 1397:2001	≥ 0.3 to ≤2.9	Up to 1525	Surface finish spangled passivated. Optional: minimal spangle. (Optional conditions may be subject to dimensional restrictions)
ZINCFORM® G350 steel	G350 steel is a hot-dipped zinc coated structural steel with a spangled surface and guaranteed minimum yield strength of 350 MPa, with good ductility. Suitable for roll forming to a minimum internal diameter of 2t.	BlueScope Steel metallic coated (structural grade)	Bending..... 3 Drawing 2 Pressing 2 Roll forming 3 Welding..... 5 Painting (pre-treatment)..... 5	Roll formed structural sections	AS/NZS 1365:1996 AS 1397:2001	≥ 0.4 to ≤1	Up to 1220	Surface finish spangled passivated. Optional: minimal spangle. (Optional conditions may be subject to dimensional restrictions)

NR: not recommended

Metallic coated coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
ZINCANNEAL® G2S steel	G2S is a matt hot-dipped zinc/iron alloy-coated commercial forming steel with a skin passed smooth surfaces suitable for direct-on painting. Some powdering of the coating may occur with severe deformation.	BlueScope Steel metallic coated (formable grade)	Bending..... 5 Drawing..... 3 Pressing..... 3 Roll forming..... 5 Welding..... 5 Painting (pre-treatment)..... 5	Non-exposed painted panels, non-exposed automotive panels, washing machines, acoustic ceiling tiles, door frames, switchboards, commercial refrigerators and freezers	AS/NZS 1365:1996 AS 1397:2001	0.5 to ≤2	Up to 1210	Surface finish smooth matt phosphated. Optional: unphosphated/oiled. (Optional conditions may be subject to dimensional restrictions)
ZINCANNEAL® G3NS steel	G3NS is a matt hot-dipped zinc/iron alloy-coated drawing steel guaranteed non ageing and free from stretcher strain. Some powdering of the coating may occur with severe deformation.	BlueScope Steel metallic coated (formable grade)	Bending..... 5 Drawing..... 3 Pressing..... 3 Roll forming..... 5 Welding..... 5 Painting (pre-treatment)..... 5	Non-exposed painted panels, washing machines, acoustic ceiling tiles, door frames, switchboards, commercial refrigerators and freezers	AS/NZS 1365:1996 AS 1397:2001	0.6 to 1.6	Up to 1200	Surface finish smooth matt phosphated. Optional: unphosphated/oiled. (Optional conditions may be subject to dimensional restrictions)

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
COLORBOND® Coolmax® steel	COLORBOND® Coolmax® steel specially designed by BlueScope Steel to provide the highest solar reflectance pre-painted steel roofing, for cost effective and durable thermal performance.	ZINCALUME® G550S AZ 150 steel	N/A	Commercial and industrial roofing.	Substrate AS 1397:2001	0.42 and 0.48	940	
		ZINCALUME® G300S AZ 150 steel			Paint coating AS/NZS 2728:2007 Type 4	0.55	1200	
COLORBOND® Insulated Panel steel	COLORBOND® Insulated Panel steel, designed by BlueScope Steel, specifically for the manufacture of sandwich panels for coolrooms. The product offers excellent formability coupled with good durability.	ZINCFORM® G300S Z275 BF steel	N/A	Coolroom panels. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.6 to 0.7	Up to 1260	
COLORBOND® Metallic steel	COLORBOND® Metallic steel has been designed by BlueScope Steel to provide an aesthetically distinctive “metallic” effect.	ZINCALUME® G550S AZ150 steel ZINCALUME® G300S AZ150 steel	N/A	Exterior applications such as prestigious architectural projects. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.42 to 1.2	Up to 1300	

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
COLORBOND® Permagard® Insulated steel	COLORBOND® Permagard® Insulated steel designed by BlueScope Steel specifically for the manufacture of sandwich panels for coolrooms. The product offers excellent formability coupled with good durability and antibacterial properties.	ZINCFORM® G300S Z275 BF steel	N/A	Coolroom panels. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.3 to 0.8	Up to 1260	
COLORBOND® Stainless steel	COLORBOND® Stainless steel provides additional corrosion resistance and weatherability in exterior applications.	Grade 430 Stainless steel 430SS550 430SS300	N/A	Roofing and walling, particularly suited to very severe marine and industrial environments in which it provides excellent corrosion resistance, gloss retention, and colour stability. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate JIS G 4305 (Japanese standard) AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 6	0.42 to 0.55	Up to 1200	

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
COLORBOND® steel	COLORBOND® steel is specifically designed by BlueScope Steel to provide a highly durable steel for premier cladding and roofing applications.	ZINCALUME® G550S AZ150 steel ZINCALUME® G300S AZ150 steel	N/A	Roofing and accessories, wall cladding, rain water goods. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.3 to 1.2	Up to 1350	
COLORBOND® Ultra steel	COLORBOND® Ultra steel is specifically designed by BlueScope Steel to combine long term durability and exceptional corrosion resistance.	ZINCALUME® G550S AZ200 steel ZINCALUME® G300S AZ200 steel	N/A	Exterior building profiles in applications requiring excellent corrosion resistance and long term durability. Suited to moderate to severe marine, and industrial environments. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.4 to 1	Up to 1345	

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
COLORBOND® XFP steel	COLORBOND® XFP steel is specifically designed by BlueScope Steel to provide good formability and outdoor performance for the steel fencing industry.	ZINCALUME® G550S AZ150 steel (fence panels) ZINC-HI-TEN® G550 Z275 steel (posts and rail)	N/A	Exterior fencing panels, posts, rails. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.35 to 1	Up to 1220	
COLORBOND® XGD steel	COLORBOND® XDG steel is specifically designed by BlueScope Steel to provide high formability and outdoor performance for the garage and roller door industry.	ZINCALUME® G2NS AZ150 steel ZINCALUME® G300S AZ150 steel	N/A	Garage and roller doors. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3 – 4	0.4 to 1	Up to 1240	

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
AQUAPLATE® steel	AQUAPLATE® steel is a laminated galvanised steel product with exceptional durability, designed to meet the stringent quality requirements for the storage of drinking water.	ZINCFORM® G300S Z275 steel (painted or double sided laminate) ZINCFORM® G330S Z450 steel (galseal)	N/A	Water storage tanks. Tank material is suitable for potable spa, rain, bore or river water. For material selection advice, or to determine if warranties apply, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Food grade polymer film AS/NZS 4020:2005	0.6 to 1	Up to 1200	
DRUMSTOCK® Pre-Painted steel	DRUMSTOCK® Pre-Painted steel is designed by BlueScope Steel specifically for the manufacture of drumstock suitable for storing chemically active materials. The product exhibits good formability and combines a chemically resistant drum liner with a weather resistant drum outer coating.	CA45S-E steel	N/A	Drums for transportation and storage of products such as fruit pulps, dairy products, and detergents. For material selection advice, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS/NZS 1595:1998	By application only		

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
XHW Exterior Hot Water Pre-Painted steel	Exterior Hot Water Pre-Painted steel, designed by BlueScope Steel for hot water system wrappers.	ZINCALUME® G300S AZ100 steel	N/A	Exterior hot water wrappers. For material selection advice, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3	0.3 to 1.2	Up to 1350	
XMA Exterior Manufactured Articles Pre-Painted steel	Exterior Manufactured Articles Pre-Painted steel, designed by BlueScope Steel for outdoor durability and formability.	ZINCALUME® G550S AZ150 steel ZINCALUME® G300S AZ150 steel ZINCFORM® G300S Z275 steel	N/A	Exterior hot water wrappers, air conditioner panels and garden sheds. For material selection advice, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3	0.3 to 1.2	Up to 1350	

Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
GMA General Manufactured Articles Pre-Painted steel	General Manufactured Articles Pre-Painted steel, designed by BlueScope Steel for a range of general manufactured articles having good formability and cost.	ZINCALUME® G300S AZ150 steel	N/A	Various manufactured articles for interior use. For material selection advice, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001	0.3 to 1.2	Up to 1350	
IFS Interior Furniture and Shelving Pre-Painted steel	Interior Furniture and Shelving Pre-Painted steel, designed by BlueScope Steel for interior manufactured articles having good formability.	CA2S-E steel ZINCALUME® G300S AZ50 steel	N/A	Indoor furniture, office equipment, shelving. For material selection advice, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 AS/NZS 1595:1998	Cold rolled 0.4 to 1.2 Metallic coated 0.3 to 1.2	Cold rolled 100 to 1525 Metallic coated 100 to 1350	

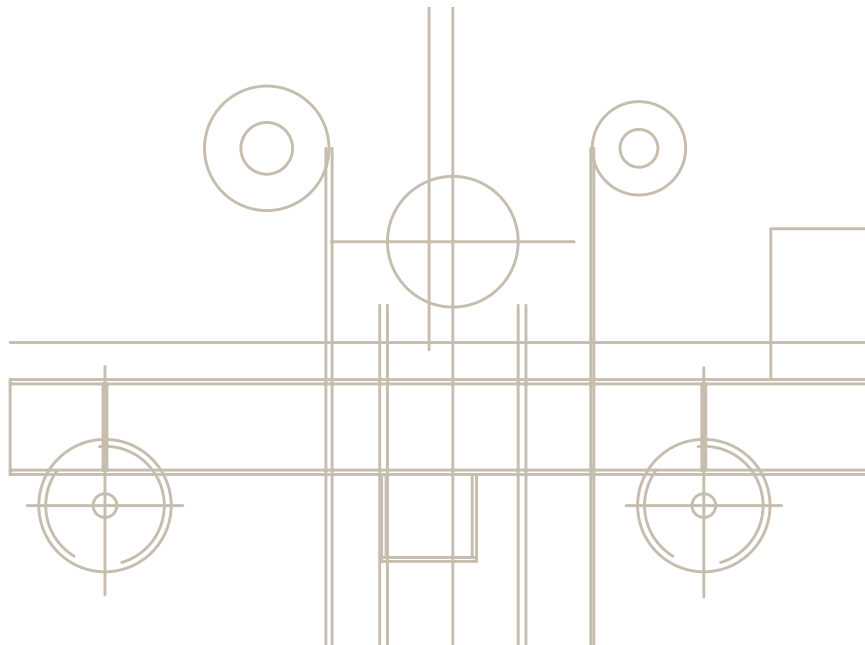
Pre-painted coil

Product name	Description	Steel range type	How it is used 1=limited to 5=excellent	Where is it used?	Australian Standards	Thickness range mm	Width range mm	Finish
POM Primer Only Material steel	Primer Only Material steel designed to be painted after fabrication. This product provides a good paintable surface with good formability and adhesion to post-painted topcoats.	Various – Please check with State sales office	N/A	Drum lid and body stock, appliance components, fascias, door and window sections. For material selection advice, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001	Cold rolled 0.4 to 1 Metallic coated 0.35 to 1.2	Cold rolled 100 to 1230 Metallic coated 300 to 1250	
SWP Sign Writing Panel Pre-Painted steel	Sign Writing Panel Pre-Painted steel designed by BlueScope Steel. A durable, mar resistant, high gloss product with superior overpaintability for the signwriting industry.	ZINCALUME® G300S AZ100 steel	N/A	Signs. For alternative uses, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3	0.5 to 1.2	Up to 1210	
SGA Superior Gloss Articles Pre-Painted steel	Superior Gloss Articles Pre-Painted steel designed by BlueScope Steel to provide a durable, mar resistant, high quality surface for non-critical, interior appliance products.	ZINCALUME® G300S AZ100 steel	N/A	Laundry cabinets, light fittings, commercial refrigeration shells. For alternative uses, visit the BlueScope Steel website or contact your nearest BlueScope Steel sales office	Substrate AS 1397:2001 Paint coating AS/NZS 2728:2007 Type 3	0.35 to 1	Up to 1350	

Product datasheets

BlueScope Steel has created a datasheet for each product in its sheet and coil range. Datasheets provide a summary of a product's key features and functions, as well as its manufacturing specification capability.

Product datasheets are available from www.bluescopesteel.com.au or by contacting BlueScope Steel Direct on 1800 022 999.



ZINCALUME®

G300 steel
G300S steel

Metallic Coated – MC

GENERAL DESCRIPTION
ZINCALUME® G300 steel is a hot-dipped zinc/aluminium alloy-coated structural steel with a regular spangle surface and a guaranteed minimum yield strength of 300 MPa with good ductility. Suitable for roll forming to a minimum internal diameter of 1t.
ZINCALUME® G300S steel is skinpassed to improve surface quality. Skinpassed material is used to supply COLORBOND® steel and is not available without the COLORBOND® paint finish.

Structural – S

TYPICAL USES
G300 – House framing, RWG, gutters and garden sheds
G300S – Painted roll formed decking, RWG, tubing, garage door, gutters and signs (general COLORBOND® steel applications)
AUSTRALIAN STANDARD
AS 1365
AS 1397:2001

Revision 8
November 2003
This literature supersedes all previous issues

GUARANTEED PROPERTIES OF STEEL BASE

MECHANICAL PROPERTIES	GUARANTEED %
Yield strength, MPa	300
Tensile strength, MPa	400
Elong on 80 mm, (≥ 0.60mm) %	18
180° transverse bend (L axis)	1t

NOTE: tensile tested in longitudinal direction

CHEMICAL PROPERTIES	GUARANTEED MAXIMUM %	TYPICAL %
Carbon (C)	0.08	0.04 - 0.07
Phosphorus (P)	0.03	0.01 - 0.02
Manganese (Mn)	0.40	0.20 - 0.30
Sulphur (S)	0.025	0.01 - 0.02

COATING ADHESION – 180° BEND TEST

COATING CLASS	GUARANTEED
AZ50	1t
AZ150	1t
AZ200	1t

FIRE HAZARD PROPERTIES

INDEX	RANGE	SCORE
Ignitability Index	(range 0 - 20)	0
Spread of Flame Index	(range 0 - 10)	0
Heat Evolved Index	(range 0 - 10)	0
Smoke Developed Index	(range 0 - 10)	0 - 1

DIMENSIONAL CAPABILITIES

THICKNESS RANGES MM	NORMAL	MAX. WIDTH MM
≥ 0.30 < 0.32	G300S	1070
≥ 0.30 < 0.32	G300	1100
≥ 0.32 < 0.35	G300/G300S	1100
≥ 0.35 < 0.38	G300/G300S	1220
≥ 0.38 ≤ 1.00	G300/G300S	1235
> 1.00 ≤ 1.20	G300/G300S	1220

Slitting and shearing available on request from BlueScope Steel sales offices.
These dimensions are a reflection of technical capability to produce. Supply conditions may be subject to dimensional restrictions and is subject to BlueScope Steel Sales and Marketing confirmation.

NORMAL/OPTIONAL SUPPLY CONDITIONS

	NORMAL	OPTIONAL
Coating Class	AZ150	AZ200 AZ50 - by enquiry only
Surface Condition	Spangled	
Surface Treatment	Passivated/ Resin coated	
Tolerance Class		
Dimensions	A Class	B Class
Flatness	A Class	B Class

IMPORTANT NOTES:
Material should be used promptly (within 6 months) to avoid the possibility of storage related corrosion.
For selection of the most appropriate metallic coated steel, please refer to technical bulletins TB1a, TB1b, CTB21 and CTB22.
Mechanical properties are guaranteed at ambient/room temperatures. Please consult technical representatives at BlueScope Steel Sales office for high/low temperature use.

How to order sheet and coil products



Order checklist

The following checklist should be used to help correctly specify products at time of order placement.

If you would like assistance, or require information about a product or process that is not featured in this product guide, contact your local sheet and coil distributor or BlueScope Steel Direct on 1800 022 999.

Product and end use

When ordering sheet and coil products, consider the product type that best fits the purpose of the end application. Each product type has characteristics suitable for a range of functions, such as forming and bending, and different levels of corrosion protection or strength performance.

Dimensions

Specify the width (mm), thickness (mm) to two decimal places and length (mm). Also quote the required tolerance - Class A (standard) or Class B (tighter tolerance).

Some sheet and coil products are supplied as mill edge unless otherwise specified. Advise your distributor if you require trimmed edge condition, or if you need slit coil or sheet.

Pack mass

When ordering sheet and coil products pack mass specification and pack type, should be specified.

Coating class

When ordering metallic coated or pre-painted sheet and coil products, please supply details of the correct coating thickness, paint colour and surface protection to ensure the steel you receive meets its end use requirements.

Please note that all BlueScope Steel metallic coated sheet and coil products should be ordered to their base metal thickness (BMT). Orders should be placed in metric thicknesses to two decimal places, nominating the base metal thickness e.g. GALVABOND® G2-Z275 0.50 mm.

Quantity

Orders are expressed in tonnes. Speak to your distributor about minimum order quantity requirements and be aware that specialty grades may require larger volume orders.

Certification

If you require individual coil test certificates ensure these are requested at time of order placement.

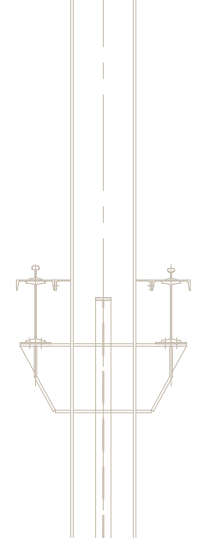
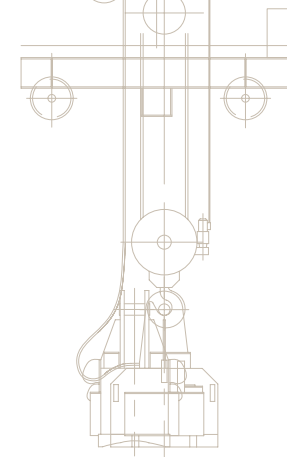
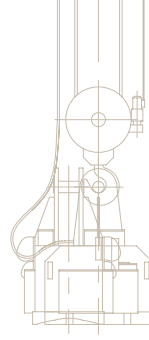
Lead time

Discuss lead time requirements with your local distributor. Lead times may vary due to product mix or specification.

Destination

State the address to which delivery is to be made.

Customer support



Pre-sales technical support

BlueScope Steel's extensive range of sheet and coil products are backed by an experienced Technical Service team that operates Australia-wide. They are available to provide advice about the right product to use for particular applications.

Additionally, they can provide advice about the use of sheet and coil products in corrosive environments, or help select specific products for particular manufacturing processing requirements.

Post-sales technical support

Typical post-sales assistance may involve customer processing issues and queries about appropriate sheet and coil products for use in conjunction with new machinery. Processing queries are typically related to press forming, roll forming, joining and fastening, shearing and slitting, plasma/laser cutting, welding and finishing (painting, enamelling, metal coating).

BlueScope Steel Direct contact centre

BlueScope Steel Direct is BlueScope Steel's Australian-based contact centre. The centre is open Monday to Friday from 8:30am to 5:30pm (EST) and handles a range of national technical enquiries. It receives over 2000 phone calls, emails and web enquiries a month from a wide range of individuals and companies including architects, engineers, designers, distributors and home owners.

Each member of the contact centre team is a trained product or application expert. Where information exceeding a phone enquiry is needed, the call is directed to an appropriate Technical Service representative.

Outside normal business hours, a voicemail message service and 24 hour web enquiry system are available.

Phone BlueScope Steel Direct on: 1800 022 999.

Your local distributor

Your local distributor stocks a comprehensive range of sheet and coil products. They can draw on their extensive technical knowledge of BlueScope Steel's sheet and coil product range to help you make the right product selection for your end use application. Their local processing facilities slit and shear products to suit small unit orders and resize steel to suit your transport and varied end use processing requirements.

Local distributors also offer additional services such as order management, product storage, credit terms and same day or next day delivery. Talk to your local distributor to see how their flexible supply and service offer can support your business.

To locate your nearest sheet and coil distributor, use the 'Supplier Locator' tool on the BlueScope Steel website at www.bluescopesteel.com.au

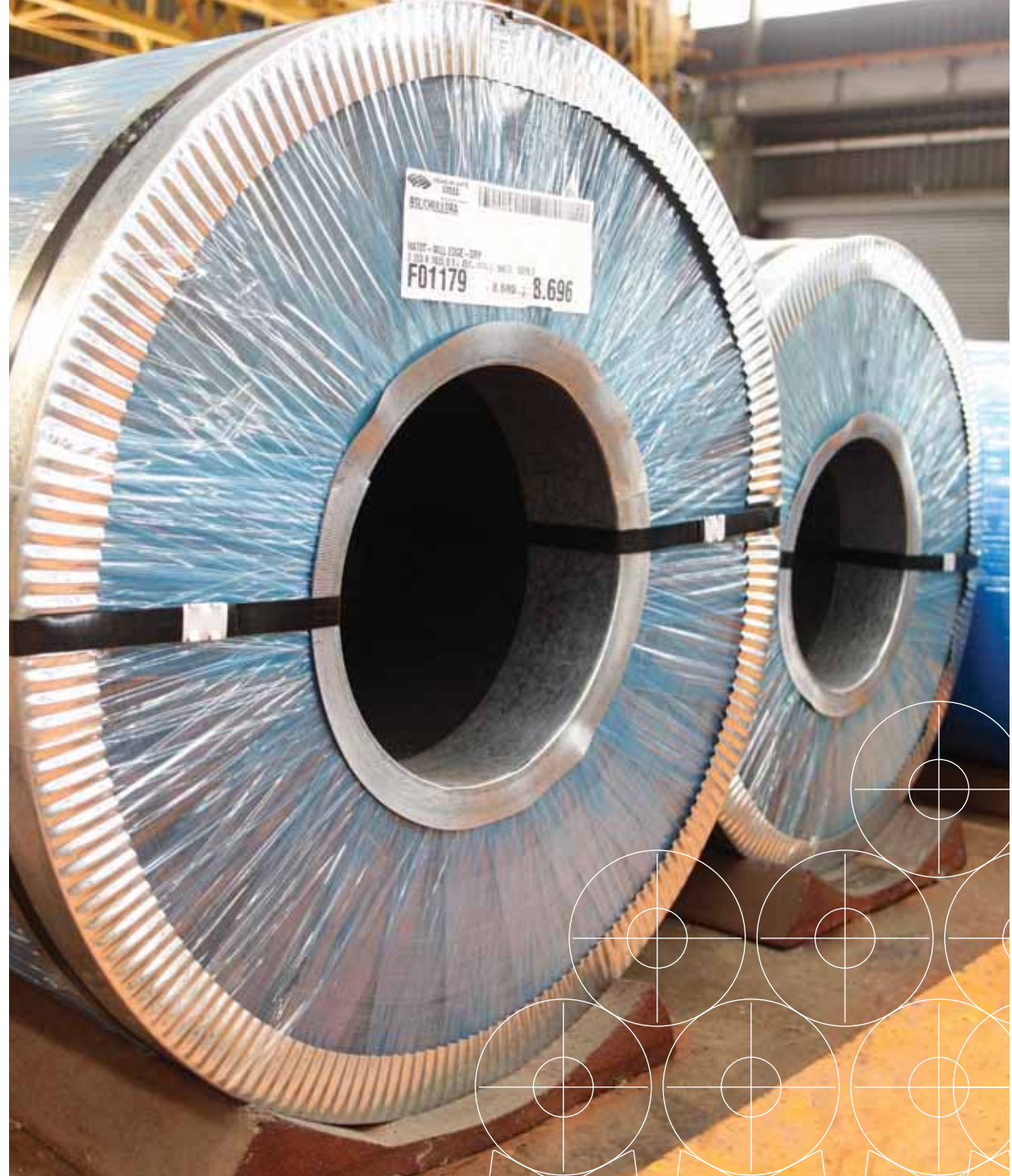
Storage and care

How to stack and store sheet and coil products

When working with sheet or coil products it is important to have safe handling, transport and storage procedures and systems. BlueScope Steel has developed a number of publications which address these issues and should be referred to, to reduce risks associated with the stacking and storage of sheet and coil products.

To order any of these publications call BlueScope Steel Direct on: 1800 022 999.

Storage and care of sheet and coil products	
Title	Document number
Materials Handling and Storage	9 320075 043179
Recommended Practices for Steel Coil and Sheet Storage and Stacking	9 320075 046835
TB7 – Care and Storage of Exterior BlueScope Steel Products Prior to Installation	9 320075 034290

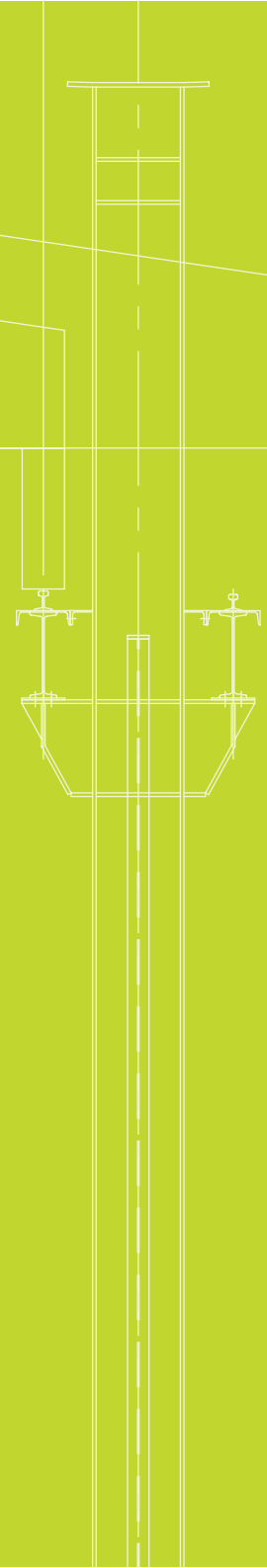


Sheet and Coil product tolerances



Dimensional tolerances:

The term dimensional tolerance refers to the permissible variation from a specified dimension of product. The degree of accuracy which may be expected will depend on whether the product is hot or cold rolled, the type of rolling mill equipment used, unavoidable operating contingencies, the specified size or edge condition, and in some cases the steel composition. The following tables show either the specified BlueScope Steel or appropriate Australian Standard product tolerances.

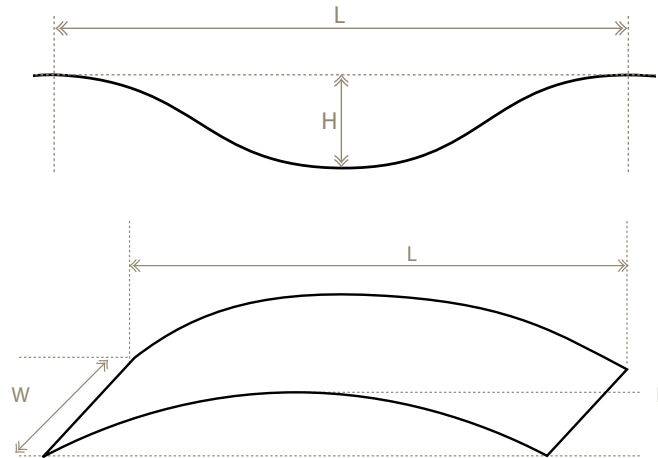


Coated and uncoated flat products

Measurement of Flatness AS/NZS 1365:1996

Flatness has traditionally been a product feature which is hard to quantify. The flatness is measured on the product under its own weight resting on a flat surface so that any deviation from the flat surface can be observed. The straight-edge may be placed in any direction. Only the portion between the two points of contact is taken into consideration.

Figure 1 measurement of flatness
W=width, L=length, H=deviation



Measurement of Steepness Ratio Alternative for expressing flatness

Steepness ratio is calculated by measuring H and L, as shown in Figure 1 for the product resting under its own weight on a flat horizontal surface with the deviation to be measured facing upwards.

$$\text{Steepness ratio} = H/L \times 100$$

Coated and uncoated flat products

Measurement of Edge Camber AS/NZS 1365:1996

Camber is the lateral departure of the edge of sheet or strip from a straight line forming a chord.

When sheet or strip is laid on a flat horizontal surface and straight-edge placed at the concave side edge, the maximum distance between the side edge and the straight-edge is the camber (see Figure 2).

Camber can also be measured by placing adjacent sheets or pieces of the same length of strip with concave edges together (see Figure 3). Actual camber is one half of the maximum distance between the two edges. Camber is a measured value divided by length, expressed as a percentage.

Figure 2 measurement of camber – using straight-edge
W=width, L=length, H=deviation

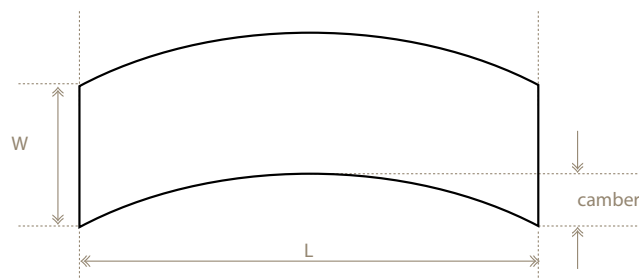
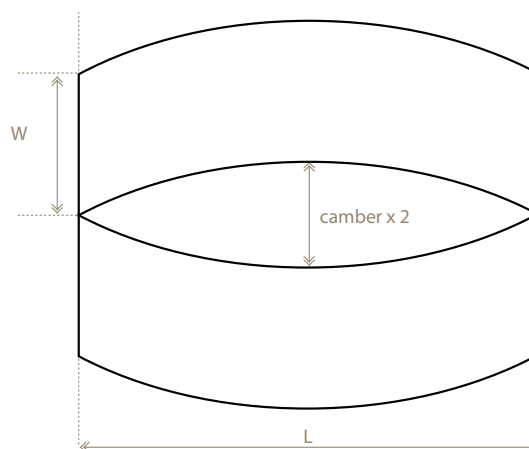


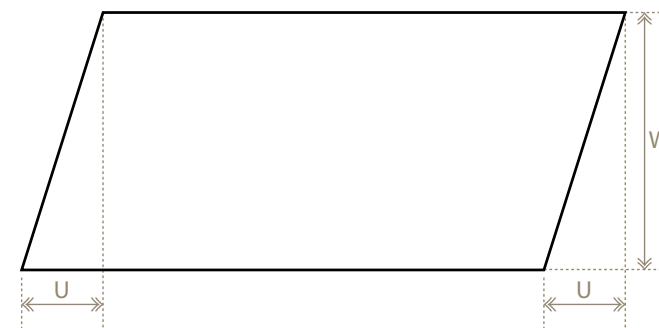
Figure 3 measurement of camber – using two lengths
W=width, L=length, H=deviation



Measurement of Out-of-Square AS/NZS 1365:1996

The deviation from squareness of a length cut from trimmed-edge steel strip is measured by scribing a line normal to the trimmed edge adjacent to the cut. The out-of-square is expressed as a percentage of the measured value of deviation from square divided by the nominal width (see Figure 4).

Figure 4 measurement of out-of-square
W=nominal width, U=deviation from square



Note: Out-of-squareness is expressed as $U/W \times 100\%$

Hot rolled sheet and coil

Thickness Tolerances

AS/NZS 1365:1996

All Edge Conditions

Specified Thickness mm	Thickness Tolerance plus or minus mm
≤ 1.60	0.16
> 1.60 ≤ 2.00	0.18
> 2.00 ≤ 2.50	0.19
> 2.50 ≤ 3.00	0.21
> 3.00 ≤ 4.00	0.23
> 4.00 ≤ 5.00	0.25
> 5.00 ≤ 6.00	0.27
> 6.00 ≤ 8.00	0.29
> 8.00 ≤ 10.00	0.32
> 10.00 ≤ 13.00	0.36

Note: Thickness is measured not less than 10mm from trimmed edge or not less than 25mm from an untrimmed edge.

Width Tolerances

AS/NZS 1365:1996

Trimmed Edge

Specified Width mm	Width Tolerance mm			
	Specified Thickness mm			
	< 3.00		≥ 3.00 – ≤ 13	
	plus	minus	plus	minus
< 150	1.00	0	1.50	0
≥ 150 < 300	1.50	0	2.00	0
≥ 300 < 450	2.00	0	2.50	0
≥ 450 < 600	2.50	0	3.00	0
≥ 600 < 750	3.00	0	3.00	0
≥ 750 < 1000	4.00	0	4.00	0
≥ 1000 < 1250	5.00	0	5.00	0
≥ 1250 < 1500	6.00	0	6.00	0
≥ 1500 ≤ 2000	7.00	0	7.00	0

Hot rolled sheet and coil

Edge Camber Tolerances

AS/NZS 1365:1996

All Edge Conditions

Specified Width	Edge Camber Tolerance %
all	0.4

Width Tolerances

AS/NZS 1365:1996

Untrimmed Edge

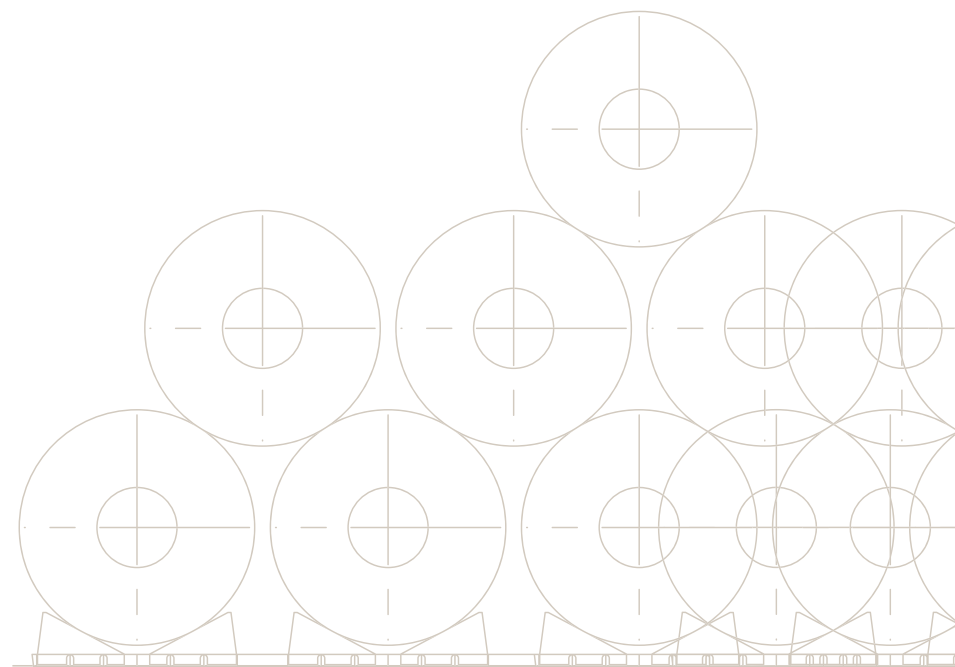
Specified Width mm	Width Tolerance mm	
	plus	minus
> 599 ≤ 1000	25	0
> 1000 ≤ 1250	30	0
> 1250 ≤ 1500	35	0
> 1500 ≤ 2000	40	0

Length Tolerances

AS/NZS 1365:1996

All Edge Conditions

Specified Length mm	Length Tolerance mm	
	plus	minus
< 2000	10	0
≥ 2000 < 4000	15	0
≥ 4000 < 6000	20	0
≥ 6000 < 12000	30	0
≥ 12000	50	0



Hot rolled sheet and coil

Flatness Tolerances

AS/NZS 1365:1996

All Edge Conditions

Flatness tolerances given are applicable to sheet steel having a specified carbon content equal to 0.25% or less and a specified or typical minimum yield strength less than 340 MPa. For sheet and strip > 340 MPa specified or typical minimum yield strength, the flatness tolerance is determined by multiplying the values given in the table by a factor of 1.5.

Nominal Thickness mm	Distance Between Points of Contact mm	Flatness Tolerance mm	
		Class A	Class B
≤2	≤500	10	3
	> 500 ≤750	15	4
	> 750 ≤1000	20	5
	> 1000 ≤1500	25	8
	> 1500	30	10
>2 ≤5	≤500	8	3
	>500 ≤750	12	4
	>750 ≤1000	15	5
	>1000 ≤1500	20	8
	>1500	25	10
>5 ≤13	≤500	5	–
	>500 ≤750	8	–
	>750 ≤1000	10	–
	>1000 ≤1500	15	–
	>1500	20	–

Note: The tolerances apply when measured at least 20 mm from the longitudinal edges and 100 mm from the transverse edges.

Steepness Ratio

AS/NZS 1365:1996 and AS 1548:1995

This is an alternative method for expressing flatness.

Specified Thickness mm	Steepness Ratio	
	Class A	Class B
≤2	1.8	0.6
>2 ≤3.2	1.5	0.6
>3.2 ≤13	1.5	–

Out-of-Square Tolerance

AS/NZS 1365:1996

For all sizes, the cut lengths shall be such that sheet steel of the ordered nominal dimensions can be obtained. When measured as shown on page 38, the out-of-squareness of the cut length from trimmed steel strip shall not exceed 1.0%.

Cold rolled and cold rolled metallic coated sheet and coil

These tolerances apply to cold rolled, metallic coated and organic coated sheet and strip steel. For coated products, including those with organic coating, thickness tolerances apply to base metal only.

Thickness Tolerances

AS/NZS 1365:1996

All Edge Conditions

Specified Length mm	Thickness Tolerance plus or minus mm		
	Specified Width mm		
	≤1200	>1200 ≤1500	>1500 ≤2000
≤ 0.30	0.02	–	–
> 0.30 ≤ 0.50	0.03	0.04	–
> 0.50 ≤ 0.80	0.04	0.05	0.06
> 0.80 ≤ 1.20	0.05	0.06	0.07
> 1.20 ≤ 1.60	0.06	0.07	0.08
> 1.60 ≤ 2.00	0.07	0.08	0.09
> 2.00 ≤ 2.50	0.08	0.09	0.10
> 2.50 ≤ 3.00	0.09	0.10	0.11
> 3.00 ≤ 4.00	0.10	0.11	0.12

Note: Class A – measured at a minimum of 50 mm from the strip edge. Within 10mm of welds and coil ends, the thickness may vary by twice the above tolerance.

Class B – thickness measured not closer than 10 mm to the edge of the strip. There is no change of tolerance in the vicinity of welds or coil ends. Class B tolerances are applicable to trimmed edge material only.

Approximate Coating Thickness

The table below enables users of metallic sheets to have some idea of the approximate thickness of various coating classes.

Coating Class	Coating Mass Factor* g/m ²	Approximate Coating Thickness mm
Z100	130	0.02
Z200	220	0.03
Z275	290	0.04
Z350	370	0.05
Z450	470	0.07
Z600	650 (≤ 2.0 mm thick)	0.09
	680 (> 2.0 mm thick)	0.10
ZS30	70	0.01
ZF100	130	0.02
AZ150	170	0.05
AZ200	220	0.06

*The coating mass in this column was used for thickness calculations and includes the manufacturing margin needed to achieve the specified minima.

Theoretical coating thickness for Z and ZF coatings have been based on 100g/m² = 0.014 mm and for AZ coatings 100g/m² = 0.027 mm.

Cold rolled and cold rolled metallic coated sheet and coil

Width Tolerances AS/NZS1365:1996 Trimmed Edge – Class A

Specified Width mm	Width Tolerance mm	
	plus	minus
≤ 150	1.00	0
> 150 ≤ 300	1.50	0
> 300 ≤ 450	2.00	0
> 450 ≤ 600	2.50	0
> 600 ≤ 750	3.00	0
> 750 ≤ 1000	4.00	0
> 1000 ≤ 2000	5.00	0

Width Tolerances AS/NZS1365:1996 Untrimmed Edge

Specified Width mm	Width Tolerance mm	
	plus	minus
> 599 ≤ 1000	25	0
> 1000 ≤ 1250	30	0
> 1250 ≤ 1500	35	0
> 1500 ≤ 2000	40	0

Width Tolerances

AS/NZS1365:1996 Trimmed Edge – Class B

Specified Width mm	Width Tolerance mm							
	Strip						Sheet	
	Specified Thickness mm							
	<1.00		≥1.00 ≤3.00		>3.00		All	
	plus	minus	plus	minus	plus	minus	plus	minus
≤ 150	0.20	0	0.40	0	0.60	0	1.00	0
> 150 ≤ 300	0.40	0	0.60	0	0.80	0	1.00	0
> 300 ≤ 450	0.60	0	0.80	0	1.00	0	1.00	0
> 450 ≤ 600	0.80	0	1.00	0	1.00	0	1.00	0
> 600 ≤ 750	1.00	0	1.00	0	1.00	0	1.00	0
> 750 ≤ 1000	1.50	0	1.50	0	1.50	0	1.50	0
> 1000 ≤ 2000	2.00	0	2.00	0	2.00	0	2.00	0

Cold rolled and cold rolled metallic coated sheet and coil

Length Tolerances

AS/NZS 1365:1996 Class A

Specified Thickness mm	Length Tolerance mm	
	plus	minus
≤ 1.50	7	0
> 1.50 ≤ 4.00	10	0

Length Tolerances

AS/NZS 1365:1996 Class B

Specified Length mm	Length Tolerance mm	
	plus	minus
≤ 750	1.00	0
> 750 ≤ 1000	1.50	0
> 1000 ≤ 2000	2.00	0
> 2000 ≤ 3000	3.00	0
> 3000 ≤ 4000	4.00	0

Edge Camber Tolerances

AS/NZS 1365:1996

Specified Width mm	Edge Camber Tolerance %
All	0.2

Flatness Tolerances

AS/NZS 1365:1996

Distance Between Points of Contact mm	Flatness Tolerance mm	
	Class A	Class B (see note)
≤ 500	5	2
> 500 ≤ 750	7	3
> 750 ≤ 1000	10	5
> 1000 ≤ 1500	15	8
> 1500	20	10

Note: Class A applies to sheet ≤ 4.00 mm thick only.

Class B applies to sheet ≤ 3.00 mm thick only.

Steepness Ratio

AS/NZS 1365:1996

Specified Thickness mm	Steepness Ratio mm	
	Class A	Class B
≤ 1.70	1.2	0.5
> 1.70 ≤ 3.00	1.5	0.5
> 3.00 ≤ 4.00	1.5	—

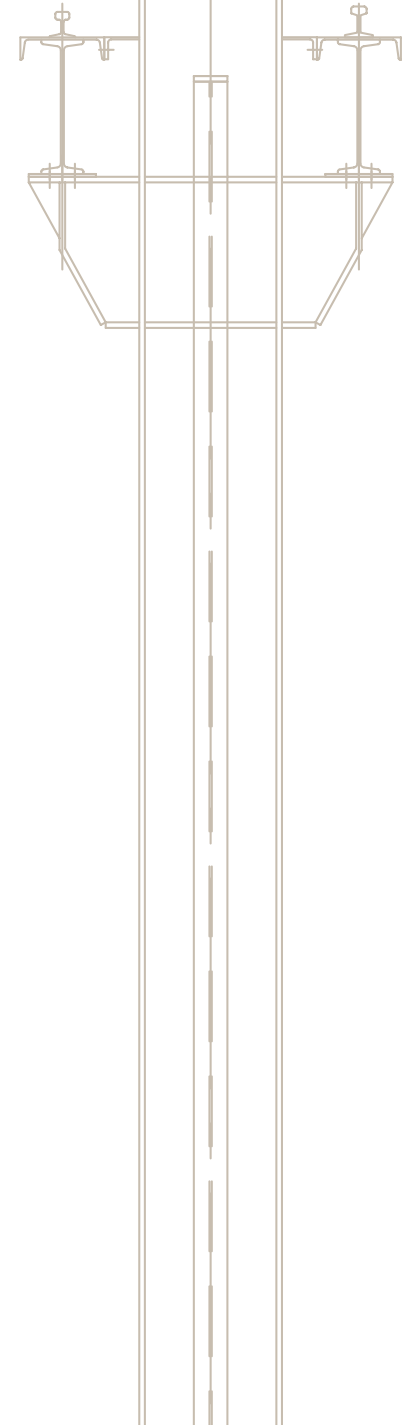
Note: For A tolerance where the length between the points of contact l, is less than 1000mm, the steepness ratio is 1%.

Out-of-Square Tolerances

AS/NZS 1365:1996

For all sizes, the cut lengths shall be such that sheets of the ordered nominal dimensions can be obtained. The out-of-squareness of a cut length of trimmed-edge steel strip shall not exceed 1.0%. Refer to page 38.

Cold rolled and cold rolled metallic coated sheet and coil



Metallic Coating Tolerance Hot-dipped Zinc Coated Zinc/Aluminium Alloy-Coated Products AS 1397:2001

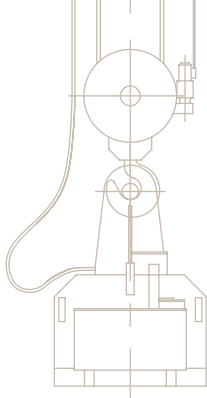
Coating Class	Coating Mass g/m ²		
	Total both surfaces		One Surface Min. Single Spot
	Min. Triple Spot	Min. Single Spot	
Z100	100	90	40
Z200	200	180	80
Z275	275	250	110
Z350	350	315	140
Z450	450	405	180
Z600	600	540	240
ZS30*	30	27	12
ZF100	100	90	40
AZ150	150	135	60
AZ200	200	180	80

*Not covered by AS 1397:2001.

Approximate Paint Thickness for Single and Double-Sided Films

Paint Film Thickness Range	
Single-Sided (ie. Shadow Grey)	0.03mm - 0.05mm
Double-Sided	0.04mm - 0.06mm

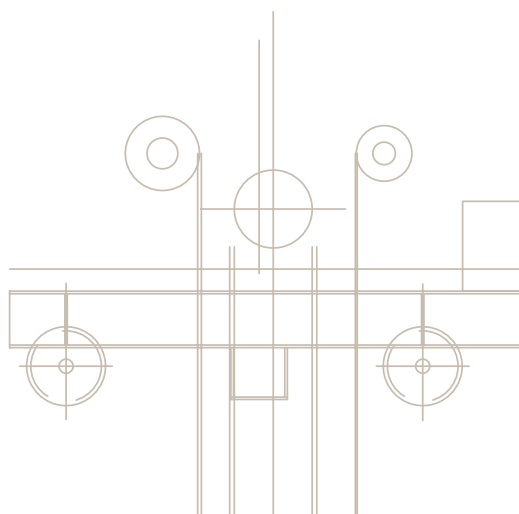
Certification



Test certificates

The steel supplied by BlueScope Steel is certified to the steel grade originally ordered. Many products are tested and certified on the basis of batch testing, where a particular coil from a group of coils is tested.

If an application requires testing of each coil in a batch, this can be done if requested when the order is placed. The identity of the product should be verified against the order information and test certificate as soon as practicable after delivery.



Page 1 of 1
 Certificate No. : 14043WPD10
 Transmission Date: 25/02/10



TEST CERTIFICATE

Customer: BLUESCOPE STEEL SSC-NSW P O BOX 144 GREENACRE NSW 2190 Cust Order No: 318018	Supplier: BlueScope Steel Limited WESTERN PORT, VIC, AUSTRALIA A.B.N. 16 000 011 058 318018 MOI No: Printed At: Supplier MWS on: 19/08/2010
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PRODUCT: **XTRAFORM(R) 500 PICKLED, MILL EDGE** SPECIFICATION: **AS/NZS1594**

CHEMICAL ANALYSIS (Chemical Analysis supplied by the Steelmaker, Basic Oxygen Steelmaking process.)

Item No	Dimensions (mm)	PACK No	CHEMICAL COMPOSITION PERCENT														
			HEAT No	C	P	Mn	Si	S	Ni	Cr	Mo	Cu	Al	Ti	Nb	B	V
01	5.00 x 910	P43366	6155019	.096	.016	1.43	.093	.002	.019	.017	<.002	.017	.027	.019	.047	.0000	.003

MECHANICAL TESTING

Item No	PACK No	Heat No	COIL/TEST No	Thick mm	Tensile AS1391				Hardness HRB	Pressure Bend AS2505.1
					ReH MPa	Rm MPa	ELONGATION			
					Lo(mm)	%				
01	P43366	6155019	DL876	5.00	540	590	200	20	92	PASS

COMMENTS
 This test certificate is issued subject to the Uncertainty of Results statement set out on BlueScope Steel's Website www.bluescopesteelconnect.com. In order to rely upon this certificate, you must read the Uncertainty of Results statement.
 Hardness reported on customer request following BlueScope Steel Standard Procedure WQID10-M021P Coating Mass measured according to BlueScope Steel Standard Procedure C-TT04-015 Sampling - As Received from production units.

I certify that the original records of the company show that the item(s) referred to on this certificate conform to the specification as stated and that the product test results on this certificate supercede product test results on any other certificate.

T. STRACHAN - APPROVED SIGNATORY



BlueScope Steel contacts

BlueScope Steel sales offices

Queensland

Telephone (07) 3845 9300

Facsimile (07) 3845 9393

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Acacia Ridge QLD 4110
76 Lysaght St,
Acacia Ridge QLD 4110

New South Wales/ACT

Telephone (02) 4275 4999

Facsimile (02) 4275 4998

Address PO Box 1854,
Wollongong NSW 2500
Five Islands Road,
Port Kembla NSW 2500

Victoria and Tasmania

Telephone (03) 9586 2222

Facsimile (03) 9586 2441

Address PO Box 139,
Braeside VIC 3195
207-213 Governor Road,
Braeside VIC 3195

South Australia and Northern Territory

Telephone (08) 8243 7333

Facsimile (08) 8243 7304

Address PO Box 59,
Rosewater East SA 5013
69 Wingfield Road,
Wingfield SA 5013

Western Australia

Telephone (08) 9365 6665

Facsimile (08) 9365 6601

Address PO Box 618,
Welshpool BC WA 6986
650 Abernethy Road,
Forrestfield WA 6986

BlueScope Steel Direct

General enquiries about BlueScope Steel and BlueScope publications.

Free Call 1800 022 999

Free Fax 1800 800 789

BlueScope Steel Direct's services are available Mon-Fri from 8am to 6pm [AEST]
www.bluescopesteel.com.au
steeldirect@bluescopesteel.com.au

Mailing Address
Locked Bag 8825,
South Coast Mail Centre NSW 2521

International Tel: 612 4222 3456

International Fax: 612 4222 3434



Glossary

AGEING – changes in properties of steel occurring with the passage of time affecting the mechanical properties of a metal or alloy. Usually accelerated by an increase in temperature, and so may be artificial or natural.

ANNEALING – a process involving heating and cooling, applied usually to induce softening. The term annealing is also used to cover treatments to:

- Remove stresses
- Alter mechanical or physical properties
- Produce a definite microstructure, and
- Remove dissolved gases

CARBON STEEL – steel, free from intentionally added alloying elements, depending for its properties substantially upon its carbon content alone. Manganese up to 1% is not regarded as removing the steel from this designation.

CHALKING – chalk-line formation on the surface of an organic coating caused by

the breakdown of the surface layer of resin, releasing pigment particles and fillers normally bound by resin. This normally occurs after long-term exposure to sunlight.

CHATTER – transverse series of marks or lines in either the metal surface of the paint film caused by vibration or eccentric rolls in processing equipment.

COIL – rolled up length of steel strip.

COATING MASS – ability of metallic coated sheet and coil product to withstand corrosion in a particular environment is a function of the amount (and type) of coating on the surface of the steel base. This is quantified as the “coating mass” and is the mass of coating on both sides of the steel base expressed in grams per square metre (g/sm).

CORROSION – destruction of a metal by electro-chemical reaction in its environment.

DRY FILM THICKNESS – thickness

of the dried paint film on the surface of primer under the topcoat. It is measured in micrometers (um).

DUCTILITY – relative ability of metal to deform from a flat condition into a more complex shape without fracture.

ELASTICITY – property of material, which causes it to resume its original form after a removal of a load.

ELONGATION – in tensile testing, the increase in the gauge length measured after fracture of the test specimen within the gauge length, usually expressed as a percentage of the original gauge length.

FLATNESS – absence of waviness or buckles. The out-of-flatness of a sheet is the measured height of the buckles from a flat surface on which the sheet is lying.

FORMABILITY – the relative ease with which a metal can be shaped through plastic deformation.

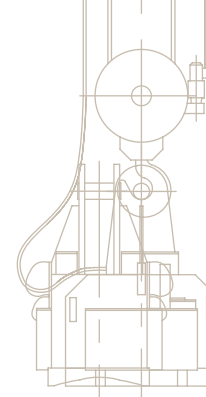
HARDNESS – the resistance offered by a metallic material to plastic deformation by indentation or penetration.

LOCK FORMING – the forming of two adjacent edges prior to interlocking.

LOCK SEAMING – the closing of a tight seam of lock formed edges of sheet metal, for example Pittsburg lock seam, grooved single lock seam, snap lock seam.

LUSTRE – lustre finish is a smooth finish for electroplating achieved by using specially prepared rolls. Some surface preparation by the plater may be necessary.

MATT – cold rolled products are available with either matt or lustre finish. The matt finish is produced by rolling with mechanically roughened rolls. It is preferred for lacquering and beneficial during drawing operations when used with a lubricant. It is the assumed surface if it is not specified in the order.



MECHANICAL PROPERTIES – properties relating to the behaviour of materials under load in conventional mechanical tests, such as yield strength, tensile strength, elongation, hardness.

PASSIVATION – a surface treatment to give greater resistance to storage corrosion in which the protection is afforded by conversion coatings and films.

PICKLING – removal of oxide films from metal by immersion in an acid. The process is applied particularly to scale removal from the metal prior to operations such as cold rolling, wire drawing and electroplating, and, in general, is carried out in dilute solutions of the mineral acids, often with additions of organic material (inhibitors) to restrain the attack on the metal. Absorption of hydrogen may occur in pickling of steel causing embrittlement of hard steels, and necessitating low temperature annealing for its removal.

PRESSING – is a metal working process in which a flat blank, constrained between two surfaces, is forced by a punch to take a required shape.

RECRYSTALLISATION – the reformation to 'round' ferrite grains flattened during rolling. This occurs at temperatures above 725°C, either immediately after hot rolling or during annealing after cold reduction.

ROLL FORMING – process by which metal is unwound from coiled strip and passed through a number of pairs of metal profile rolls.

SCALE – layers of iron oxide on the surface of hot steel when oxygen in the air combines with iron from the steel.

SKIN PASSING – a light cold rolling operation (about 1-2 percent cold work) which removes the yield point in steel which otherwise causes coil break, fluting or stretcher strain in subsequent operations. It can also be used to:

- Modify surface, for example, by reducing the surface roughness for bright (lustre) qualities by specially controlled roughening of matt finish for drawing qualities.
- Flatten the coil being rolled

SPANGLE – grain or crystal of zinc, or zinc/aluminium as appearing on hot-dip metallic coated steel.

TEMPER ROLLING – is a cold rolling operation, which adjusts the metallurgical properties of cold rolled coil and at the same time enhances surface texture and flatness.

TENSILE TEST – a standard sample of material is placed between two jaws and drawn apart in a tensile testing machine until fracture.

YIELD POINT – the stress at which the material permanently deforms.

YIELD STRENGTH – strength at which steel first exhibits plastic strain.

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