



ALLGAL
PROTECTION INSIDE AND OUT

Product Catalogue



we'll see it through



A Leading Australian Manufacturer of Structural Steel Hollow Section

Orrcon's ALLGAL steel hollow sections offer fabricators, builders and manufacturers so many benefits that it is now one of the leading range of zinc coated tubulars available on the Australian market today.

Whether it be a shade structure, cattle yard, bus shelter, floor framing or fence post, ALLGAL is now specified and used in a myriad of applications across Australia and New Zealand.

ALLGAL combines the strength and durability of structural steel with the corrosive protection properties of our unique duplex coating system which comprises a uniform and consistent electrogalvanized zinc coating and Clear-Tec clear polymer protective coating.

What makes ALLGAL® a Better Alternative?

ALLGAL is an excellent alternative to other in-line galvanized and hot-dip galvanized steel sections because:

- ALLGAL provides sound corrosion protection in mildly corrosive environments
- ALLGAL is faster, safer and easier to weld
- ALLGAL is easier and faster to laser process
- ALLGAL provides for a superior paint and powdercoat finish
- ALLGAL's zinc coating is easy to repair
- ALLGAL is safer to handle
- ALLGAL is available in Minipak quantities
- ALLGAL is available in a larger size range than other in-line galvanized steel hollow sections

Sound Corrosion Protection

ALLGAL's zinc coating combined with its Clear-Tec polymer coating results in a steel hollow section product which possesses sound corrosion protection properties in mildly corrosive environments.

ALLGAL is suitable for use in moderate to severe environments when top-coated in accordance with the following standard - AS/NZS 2312:2002.

Because ALLGAL is manufactured from steel which is zinc coated with high purity zinc on both sides prior to being cold-formed into hollow section, all ALLGAL products are protected from corrosion on the inside and out.

Although white rust is evidence that the zinc coating is doing its job, ALLGAL's Clear-Tec polymer coating increases the time before white rust commences.

The combination of high purity zinc and Clear-Tec results in ALLGAL products offering corrosion protection properties comparable with other galvanized products containing a higher zinc coating weight.



Faster, Safer & Easier to Weld

The thickness of ALLGAL's protective zinc coating is uniform and consistent making it easy to weld and causes considerably less weld spatter than hot-dip galvanized products.

ALLGAL's Clear-Tec polymer coating makes welding easier and cleaner as it reduces the potential for weld spatter to adhere to the steel section's surface.

Unlike hot-dip galvanized coated steel products which emit abundant potentially harmful fumes during welding, ALLGAL's protective zinc coating is lead free making welding safer.

ALLGAL is faster to weld than most other in-line galvanized and hot-dip galvanized steel sections as it can be welded at the same speed and setting as standard primed steel hollow sections.

ALLGAL is also easier to weld than most other in-line galvanized and hot-dip galvanized steel sections because arc initiation is similar to that of primed sections.

Easier and Faster to Laser Process

ALLGAL's smooth and consistent zinc coating thickness results in ALLGAL being up to 20 percent faster in terms of laser cutting compared to in-line galvanized, hot-dip galvanized and painted steel hollow sections.

Superior Paint and Powdercoat Finish

ALLGAL's unique smooth and consistent zinc coated surface provides an ideal substrate for powder-coating compared to hot-dip galvanized steel products which can be prone to surface unevenness and flaking.

Safer to Handle

The smooth surface finish of ALLGAL products makes them safer to handle than traditional hot-dip galvanized products which often contain sharp protrusions caused by the galvanizing process.

Easy to Repair & Apply Additional Zinc-based Paint Coatings

There may be situations where the repair or (re)application of additional protective zinc-based paint coatings to ALLGAL products may be required.

Liquid ALLGAL has been developed by Orrcon to complete the ALLGAL system.

Liquid ALLGAL is Orrcon's high content and high purity zinc-based cold galvanized protective paint coating product specifically designed for use on Orrcon ALLGAL steel hollow sections. When used in accordance with the manufacturer's instructions, Liquid ALLGAL provides an effective method of repair and maintenance of ALLGAL's protective zinc coating and provides an excellent colour match. Liquid ALLGAL is available in 400 gram net aerosols and 20 litre drums.






Product Availability and Size Range


All ALLGAL products are available in MiniPak quantities (approximately half the quantity of full packs) which means customers can hold smaller stock quantities.

ALLGAL is available in a larger range of sizes compared to other in-line galvanized products.


CIRCULAR HOLLOW SECTION 					
NB (mm)	OD (mm)	t (mm)		ALLGAL (Grade C350L0)	ALLGAL (Grade C250L0)
20	26.9	2.0	XL	✓	
20	26.9	2.3	L	✓	
20	26.9	2.6	M		✓
25	33.7	2.0	XL	✓	
25	33.7	2.6	L	✓	
25	33.7	3.2	M		✓
32	42.4	2.0	XL	✓	
32	42.4	2.6	L	✓	
32	42.4	3.2	M		✓
40	48.3	2.3	XL	✓	
40	48.3	2.9	L	✓	
40	48.3	3.2	M		✓
50	60.3	2.3	XL	✓	
50	60.3	2.9	L	✓	
50	60.3	3.6	M		✓
65	76.1	2.3	XL	✓	
65	76.1	3.2	L	✓	
65	76.1	3.6	M		✓
80	88.9	2.6	XL	✓	
80	88.9	3.2	L	✓	
80	88.9	4.0	M		✓
90	101.6	3.2	L	✓	
90	101.6	4.0	M	✓	✓
100	114.3	3.2	XL	✓	
100	114.3	3.6	L	✓	
100	114.3	4.5	M	✓	✓
125	139.7	3.0	XL	✓	
125	139.7	3.5	L	✓	
125	139.7	5.0	M	✓	✓
150	165.1	3.0	XL	✓	
150	165.1	3.5	L	✓	
150	165.1	5.0	M	✓	✓

Note: Available in standard lengths of 6.5 metres





SQUARE HOLLOW SECTION 	
Grade C350L0	
dx _b (mm)	t (mm)
20x20	1.6
25x25	1.6
25x25	2.0
25x25	2.5
25x25	3.0
30x30	1.6
30x30	2.0
30x30	2.5
30x30	3.0
35x35	1.6
35x35	2.0
35x35	2.5
35x35	3.0
40x40	1.6
40x40	2.0
40x40	2.5
40x40	3.0
40x40	4.0
50x50	1.6
50x50	2.0
50x50	2.5
50x50	3.0
50x50	4.0
50x50	5.0
65x65	1.6
65x65	2.0
65x65	2.5
65x65	3.0
65x65	4.0
65x65	5.0
75x75	2.0
75x75	2.5
75x75	3.0
75x75	3.5
75x75	4.0
75x75	5.0
89x89	2.0
89x89	3.5
89x89	5.0
100x100	2.0
100x100	2.5
100x100	3.0
100x100	4.0
100x100	5.0
125x125	4.0
125x125	5.0

Note: 20x20 to 25x25mm available in standard lengths of 6.5 metres.
30x30mm and greater available in standard lengths of 8.0 metres.

RECTANGULAR HOLLOW SECTION 	
Grade C350L0	
dx _b (mm)	t (mm)
38x25	1.6
38x25	2.0
50x25	1.6
50x25	2.0
50x25	2.5
50x25	3.0
65x35	1.6
65x35	2.0
65x35	2.5
65x35	3.0
65x35	4.0
75x25	1.6
75x25	2.0
75x25	2.5
75x25	3.0
75x50	1.6
75x50	2.0
75x50	2.5
75x50	3.0
75x50	4.0
75x50	5.0
76x38	1.6
100x50	1.6
100x50	2.0
100x50	2.5
100x50	3.0
100x50	3.5
100x50	4.0
100x50	5.0
125x75	2.0
125x75	3.0
125x75	4.0
125x75	5.0
150x50	2.0
150x50	2.5
150x50	3.0
150x50	4.0
150x50	5.0
150x100	4.0
150x100	5.0

Note: 38x25mm available in standard lengths of 6.5 metres.
50x25mm and greater available in standard lengths of 8.0 metres.

DESIGN RAIL (FLAT SIDED ROUND) 	
Grade C350L0	
dx _b (mm)	t (mm)
62x50	2.0
62x50	2.5
62x50	4.0

YARD RAIL (FLAT SIDED OVAL) 	
Grade C350L0	
dx _b (mm)	t (mm)
59x30	1.6
59x30	2.0
97x42	2.0
97x42	2.5
115x42	2.0
115x42	2.5

Note: Design Rail & Yard Rail are available in standard lengths of 6.1 metres. They are also available in 8.0 metre lengths on request.
Note: MOQ may apply.



ALLGAL Specifications

ALLGAL is manufactured to the following Australian Standards:

AS 1163 – 1991 Structural Steel Hollow Sections.
AS 4750 – 2003 ElectroGalvanized (zinc) coatings on ferrous hollow and open sections.

Orrcon's manufacturing process results in ALLGAL steel hollow sections containing an average zinc coating mass of 50 grams/m² on each side (total average coating mass of 100 grams/m²). The external surface is sealed with a Clear-Tec polymer coating.

Applications

ALLGAL structural steel hollow sections are suitable for a multitude of applications including:

Agricultural / Manufacturing:

- Stock Yards
- Fence Posts & Rails
- Agricultural Implements
- Sheds and Silos
- Trailers
- Truck, Bus & Caravan Chassis
- Truck bodies
- Racking Systems
- Shelving Systems
- Conveyors
- Material Handling Equipment
- Rolling Garage Door Axles
- Roller Shutter Axles
- Sectional Garage Door Axles
- Machinery & Equipment
- Cattle Crushes
- Playground Equipment
- Pool & Garden Fencing
- Gates
- Bus Shelters
- Shade Structure Framework (including sails, blinds, awnings, gazebos, shade houses, umbrellas)

Construction:

- Architectural & Structural Columns
- Roof Framing
- Wall Framing
- Floor Framing
- Deck and Verandah Framing
- Pergola Framing
- Balustrade & Handrail
- Space Frames, Trusses





Notes:

General Information Regarding Installation, Storage & Handling of ALLGAL Products

ALLGAL steel hollow section products are only recommended for use in mildly corrosive environments and should not be used in environments exposing the product to soluble salts containing chlorides, nitrates and sulphates. When combined with moisture, these chemicals can attack the zinc coating and steel substrate causing accelerated corrosion.

Environments susceptible to acid rain, chemical spillage, animal waste, fertilisers and particularly those within one kilometre of coastal areas or other salt laden environments such as inland seas and lakes are considered harshly corrosive and are not suitable for ALLGAL unless further corrosion preventative measures are taken such as painting with an epoxy, polyurethane, oil-based topcoat or powder coating.

Where ALLGAL products must be used in corrosive environments, thicker high purity zinc coatings such as liquid ALLGAL should be applied prior to original installation and on an ongoing basis post installation. Where installed in salt-laden environments, ALLGAL products should be regularly washed down with clean water to remove salt deposits.

The life and performance of ALLGAL steel hollow sections will be prolonged where the products are applied, installed or used in an upright position or at such an angle which facilitates run-off of water and moisture due to gravity. Water or moisture which ponds on ALLGAL surfaces can cause white rust and may eventually lead to red rust. Where water and moisture does not run-off due to gravity or allowed to sufficiently dry, ALLGAL steel products must be inspected from time to time and wiped down to prevent the possibility of corrosion. Any indication of corrosion should be treated immediately by applying an appropriate corrosive protection product according to manufacturer's directions for use. Liquid ALLGAL is ideal in these cases. Note that whilst products such as Liquid ALLGAL assist in maintaining corrosive protection properties, they will not remedy any impact on the structural integrity of ALLGAL products caused by corrosion.

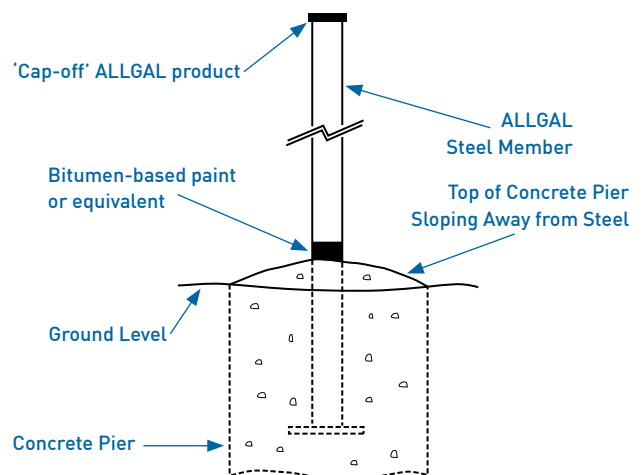
Cap ends of ALLGAL products where used in applications which can potentially allow water or moisture to enter the hollow area of the product.

Additional Precautions when Installing ALLGAL Products in the Ground

As with all galvanized products, the following precautions should be followed to obtain best results when installing ALLGAL in the ground:

- Prior to installation, coat section of steel in contact with concrete or earth with a bitumen-based paint product such as Ormonoid according to the manufacturer's directions for use. Bitumen paint should ideally coat 100mm of the steel above ground so as to ensure that moisture does not remain in contact with the steel.
- In addition, where ALLGAL products are installed into concrete piers, ensure the top of the concrete pier is above ground level providing a barrier between the earth and steel. Ensure the top of the concrete pier slopes away from the ALLGAL product to allow water and moisture to run away from the base of the steel.
- Under no circumstances should water or moisture be allowed to pond around the steel.

Installation of ALLGAL Steel Hollow Sections in Concrete Piers



Repair and Maintenance of ALLGAL's Protective Electrolytically Galvanized Zinc Coating

Depending on the product's application, method of transportation, storage and handling, ALLGAL's protective zinc coating may encounter damage which can adversely affect the product's life. The coating should be repaired immediately with an appropriate product such as Liquid ALLGAL in accordance with the manufacturer's directions for use.

Exposed edges resulting from cutting, sawing or other work should be repaired immediately using an appropriate product such as Liquid ALLGAL according to the manufacturer's directions for use.

Storage Instructions

Avoid pack storage in external conditions or those susceptible to moisture. If storing ALLGAL in wet or moist conditions, separate individual lengths storing them off the ground so they can adequately dry. No galvanized steel products should remain in surface contact with each other under continually damp conditions as they will eventually develop white rust.

Powder-coating

Where users of ALLGAL are considering the application of powder-coating, some surface preparation of ALLGAL products may be required as powder-coating pre-treatment processes vary.

Contact Orrcon for more in-depth information regarding all technical aspects of ALLGAL accessible from www.orrcon.com.au



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