Ocloc™ nz

The ultimate in vineyard trellis systems

Ocloc is a simple, robust and long-term trellis system

Galfan coated high tensile steel

Ocloc for sustainable and responsible viticulture

Designed in Australia
Manufactured in Australia and New Zealand

office@oclocnz.co.nz • www.oclocnz.co.nz

Ocloc products are carbon offset at manufacturing

Galfan Information

Ocloc New Zealand

Ocloc V

Central Otago Dev.

Ocloc NZ™

The ultimate in vineyard trellis systems

Ocloc NZ trellis products are designed and manufactured in Australia & New Zealand, distributed in New Zealand.

Ocloc NZ - 1 Auckland Street, Mayfield, Blenheim, Marlborough 7201

The Products

Ocloc V - Repair for broken wooden posts

Ocloc A and AW - Line post for replacement trellis posts and new developments

Ocloc S - Strainer for replacements and new developments

Since 2010 Ocloc has been used in all viticulture regions of Australia and is now available in New Zealand

Ocloc products are Galfan coated in rare metals, aluminium, zinc & magnesium for the ultimate corrosion resistance (for further information, please visit galfan.com)

All Ocloc products are 100% carbon offset at manufacturing

Ocloc products are protected by either patents or design registrations in Australia and Internationally

"Ocloc V repair system for treated CCA and Creosote posts, allows us to fix our broken wood posts at under a third of the cost of replacement, reducing our post piles helping us with our environmental response. The Ocloc steel vineyard posts are the way forward for conscientious viticulture and has been as important to the vineyard as the screw cap has been to the winery"

Nigel Blieschke - Viticulturist Torbreck Wines, Barrossa

Ocloc™ CV or BV

Ocloc V is the repair system for broken wooden posts

Ocloc™ V

repair system for broken CCA posts

"We have used over 207,000 Ocloc V's as repair systems since 2019, best long term environmental repair at less than half the cost of normal post replacements"

Wayne Ellis - Duxtons Vineyard

Minimal equipment required
Petrol rammer available for hire or sale

Ocloc NZ engonomic trailer available for hire or sale

Ocloc™ nz

For further details please contact

Phillip Gleeson: 027 275 9057
Sam McConway: 027 422 4738

office@oclocnz.co.nz
www.oclocnz.co.nz

Ocloc™ V

Designed & Manufactured in Australia

Ocloc V - Long term fix for broken wooden posts

Material: G450 High tensile steel for strength

Coating: GALFAN Coating - rare metals, aluminium, zinc and magnesium. The ultimate in corrosive resistant coating for durability

Thickness: **CV** 1.6mm thick Galfan

BV 1.8mm thick Galfan

Length: 1.05m

Ocloc V fits onto the half round and quarter round post

No sharp edges, ideal for under vine management

No need for new toxic replacement posts

No new wooden posts, reduces your vineyards carbon footprint

All Ocloc products are carbon offset

Maintain your organic status

You will not have to cut staples or remove plastic clips

No more posts to the broken post graveyard

Ocloc V application requires a side by side, 4-wheeler or equivalent; petrol rammer, impact driver or drill

Find broken post; repair with Ocloc V with one pass

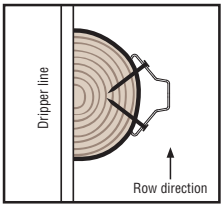
4 x 75mm shark tooth screws supplied

Ocloc V is an inexpensive install that alleviates the expense of tedious traditional treated wooden post replacement and the ecological footprint legacy they create

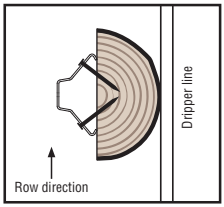
Lower clip position, lifting wire

Round side

Flat side



Half round post fix on round side



Half round post fix on flat side

Ocloc V-NZ - petrol ramming

Ocloc V-NZ - screwing

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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www.oclocnz.co.nz

Ocloc™ V

Repair System for broken CCA post

Full round, half round & quarter round solution

Quarter round post, Central Otago Folley Wines Vineyard

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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www.oclocnz.co.nz

Ocloc™ V

Repair System for broken CCA post

Full round, half round & quarter round solution

Ocloc V repair to half round - Central Otago and Marlborough. Round surface or flat.

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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Ocloc™ V

Repair System for broken CCA post

Full round, half round & quarter round solution

CCA Waste = time, money, frustration and adds polution

Prevent vineyard waste and maintain your posts without the need for crowbarring out wooden stumps or removing wires. No more toxic, arsenic impregnated new timber post that could break again and reduce profitability.
The Ocloc V allows you to commence post repairs immediately after harvest.

Ocloc is the solution with one pass through the vineyard.

"Find, repair, move forward"

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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Ocloc Endorsements

"We have been using Ocloc steel posts on our properties for many years, for replacements and new vineyard developments.

We find them durable, easy to install, environmentally sound and best of all the options for VSP canopy management due to the many incremented slots to allow the foliage wires to be placed anywhere on the post"

Yangarra Estate Vineyard & Hickinbotham Clarendon Vineyard. Michael Lane vineyard manger

"I now only use Ocloc vine posts for all trellis replacements and have not used a CCA wooden post as a vine row replacement since. We recently planted a Green Field vineyard using only Ocloc galfan steel posts. Ocloc products are value for money and the Galfan coating will provide very long protection against rust, giving me much greater confidence than standard galvanising"

Dick Bryksy, Operations Manager Kirribilly Viticulture, Clare Vineyards (now at Taylors wines)

"Having Installed Ocloc products for many years they are clearly the best system: very strong, long lasting, economical, easy to install and environmentally responsible. They are simply what Australian viticulture has needed for years"

Linke Vineyard contracting services, Damien Linke

Ocloc™ A or AW

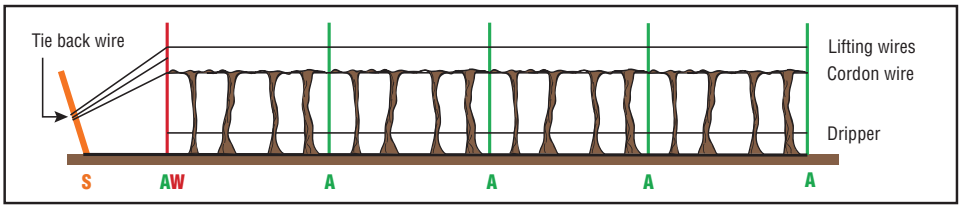
The ultimate in vineyard trellis systems

Ocloc A and AW are replacement posts and for new developments

Ocloc™ A

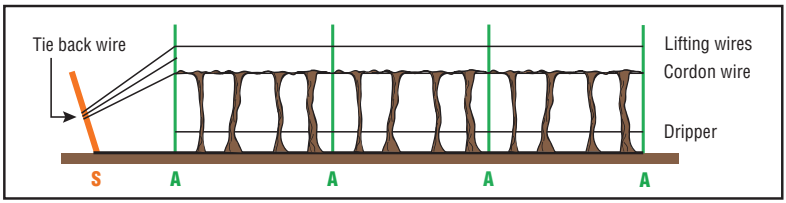
Trellis Post

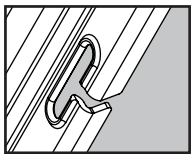
Designed & Manufactured in Australia



Alternative Trellis Structure

Ocloc K clip

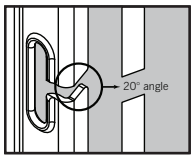




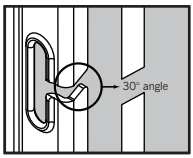
Rounded wire holes.

Anti Sink Plate

Ocloc NSC - Netting Spray Cap

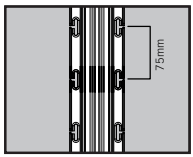


VSP 20º angle.

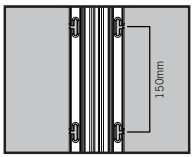


TWS 30º angle.

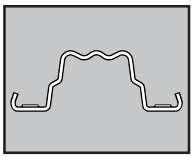
Dripper Wire - 2.5mm thick



75mm wire hole spacing.



150mm wire hole spacing.



Curved edges to protect mechanical picking rods & pruning knives.

A	Trellis post
S	Strainer
AW	Large post

Ocloc A posts can be ordered in wire spacing and trellis configuration to suit specific vineyard requirements

GALFAN for corrosion resistance. More information can be found at: **www.galfan.com**

Bundles of 200

75mm and **150mm** wire spacing

Available in VSP or TWS

Available in several lengths

1.8m - 6 feet	2.1m - 7 feet
2.4m - 8 feet	2.7m - 9 feet

Ocloc™ nz

For further details please contact

Phillip Gleeson: 027 275 9057
Sam McConway: 027 422 4738

office@oclocnz.co.nz
www.oclocnz.co.nz

Ocloc™ A

Trellis Post

Designed & Manufactured in Australia

Material: G450 High tensile steel for strength

Coating: GALFAN Coating - rare metals, aluminium, zinc and magnesium. The ultimate in corrosive resistant coating for durability

Thickness: 2.4 mm thick Galfan

Lengths: 1.8m, 2.1m, 2.4m, 2.7m

86mm wide to alleviate vine crowding

Unique profile to enhance strength and in ground rigidity

Angled wire slots

Rounded wire holes

Robust design for barrel pruning and machine harvesting

Quick and easy to install, no staples

Ocloc K nylon clip for mechanical cane pruning

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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Ocloc™ A

Trellis Post

Designed & Manufactured in Australia

Ocloc A line post - 2.4 long 75mm wire slot intervals vertical shoot, 1.8 mm thick
Ocloc S strainers - 2.7m long, 3mm thick

New development Matua Marlborough

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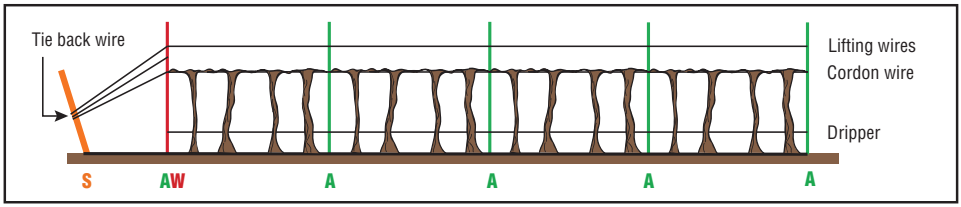
Ocloc™ AW

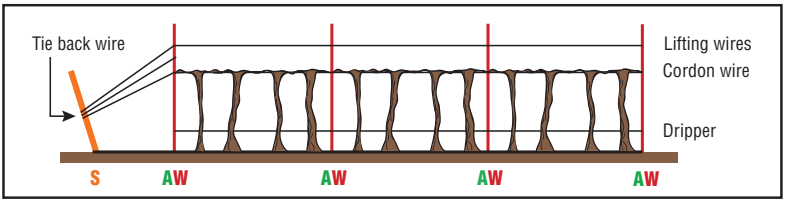
Trellis Post

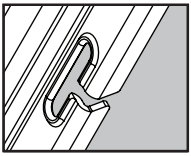
Designed & Manufactured in Australia



Alternative Trellis Structure

Ocloc K clip



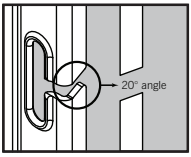


Rounded wire holes.

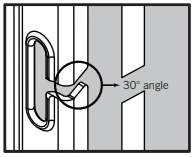
Anti Sink Plate

Ocloc NSC - Netting Spray Cap.

A	Trellis post
S	Strainer
AW	Large post



VSP 20º angle.



TWS 30º angle.

Dripper Wire - 2.5mm thick

Ocloc AW posts can be ordered in wire spacing and trellis configuration to suit specific vineyard requirements

GALFAN for corrosion resistance. More information can be found at: **www.galfan.com**

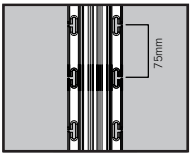
Bundles of 150

75mm and **150mm** wire spacing

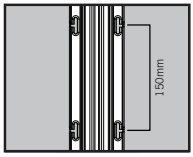
Available in VSP or TWS

Available in several lengths

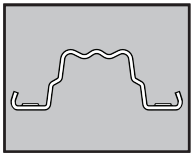
1.8m - 6 feet	2.1m - 7 feet
2.4m - 8 feet	2.7m - 9 feet



75mm wire hole spacing.



150mm wire hole spacing.



Curved edges to protect mechanical picking rods & pruning knives.

Ocloc.nz™

For further details please contact

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Sam McConway: 027 422 4738

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www.oclocnz.co.nz

Ocloc™ AW

Trellis Post

Designed & Manufactured in Australia

Material: G450 High tensile steel for strength

Coating: GALFAN Coating - rare metals, aluminium, zinc and magnesium. The ultimate in corrosive resistant coating for durability

Thickness: 2.4 mm thick Galfan

Lengths: 1.8m, 2.1m, 2.4m, 2.7m

First in post

86mm wide to alleviate vine crowding

Outside rows or excessively windy sites

Unique profile to enhance strength and in ground rigidity

Angled wire slots

Rounded wire holes

Robust design for barrel pruning and machine harvesting

Quick and easy to install, no staples

Ocloc K nylon clip for mechanical cane pruning

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc.nz™

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www.oclocnz.co.nz

Ocloc™ AW

New Development

Designed & Manufactured in Australia

Central Otago, New Development / Replacement

Boney Soil. Replacement Mt. Pisa

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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www.oclocnz.co.nz

Ocloc™ ASP

Anti Sink Plate

Designed & Manufactured in Australia

Anti Sink Plate

Material: G450 High tensile steel for strength

Coating: GALFAN Coating - rare metals, aluminium, zinc and magnesium. The ultimate in corrosive resistant coating for durability

Thickness: 2.4 mm thick Galfan

Easy to apply - screw into place

First in trellis post

Sandy soil

Fits into posts Ocloc A and AW

Anti sink plate: First in trellis post

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Ocloc™ nz

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Ocloc™ K

Automated Cane Pruning

Designed & Manufactured in Australia

Ocloc K

Vertical wire release system

Ocloc K nylon clip for mechanical lifting and cane pruning

Specifically designed for mechanical cane pruning

Ocloc K is secured through the wire hole wire with a metal screw

Ocloc K is made from high grade nylon with added carbon for extended UV protection

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

For further details please contact

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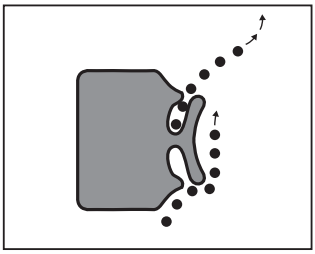
Ocloc™ K

Automated Cane Pruning

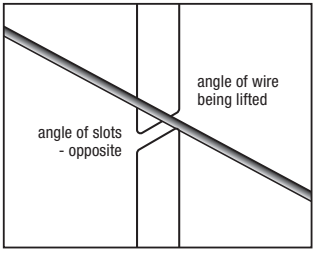
Designed & Manufactured in Australia

Ocloc A + 4 Ocloc K clips



2.85 wire or 2.65mm wire movements

Ocloc 'K' clip being attached



The wire moves away at the bottom of the klip/clip so it will not catch.

The lifting wire moves away from the klip/clip at 45 degrees.

Ocloc K

- **Ocloc K** nylon clip for mechanical lifting and cane pruning
- Easy, quick and simple to install
- **Ocloc K** is clipped into the wire hole and secured with the screw supplied

Ocloc™ nz

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Ocloc™ NSC

Netting Cap

Designed & Manufactured in Australia

Netting Cap

Ocloc NSC is a push on, permanent netting cap

Grade: High grade, robust polymer construction creates a permanent addition to the trellis

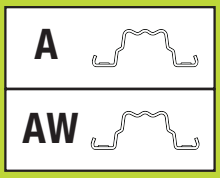
Easy, push on application

Netting cap for permanent net support

Application:

1. **Hand pick** - no screw required
2. **Machine pick** - single screw

Shapes:



Ocloc NSC fits this range of Ocloc shapes

HDPE polymer

Food grade inert

Long life span

Meets the safe drinking water Propositon 65 (USA)

Recyclable

All Ocloc products are designed to be versatile, robust and cost effective to meet the ever-changing procedures and standards of the Australian wine industry

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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www.oclocnz.co.nz

Ocloc™ S

Stand Alone Strainer

Designed in Australia • Manufactured in New Zealand

Ocloc S - Station block Foley Wines central Otago, Mt. Pisa. Move away from CCA wood.

Ocloc S

Stand alone strainer for replacements and new developments

3mm thick high tensile steel

2.55m long

GALFAN Coating - rare metals, aluminium, zinc and magnesium.

The ultimate in corrosive resistant coating for durability

No need to pre drill

Ramming head available 90mm x 190mm

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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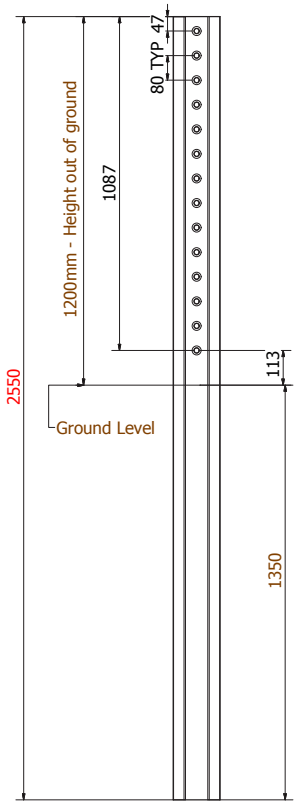
Ocloc™S

Replacement Stand Alone Strainer

Designed in Australia • Manufactured in New Zealand



ONZ/S2.55/14FH/GL1350

Replacement strainer - King hitter

Munro Rammer

Replacement strainer: cut the broken wooden strainer, place the Ocloc S strainer in front ram into place fix the wires.
Munro post rammer enquiries: office@oclocnz.co.nz

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Ocloc™nz

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Ocloc™S

New Development
Stand Alone Strainer

Designed in Australia • Manufactured in New Zealand

New development - Foley Wines, central Otago, Mt. Pisa

Tamar Valley, Tasmania

Simple wire attachment

Ocloc products are carbon neutral at manufacturing— 100% carbon offset—

Ocloc™ nz

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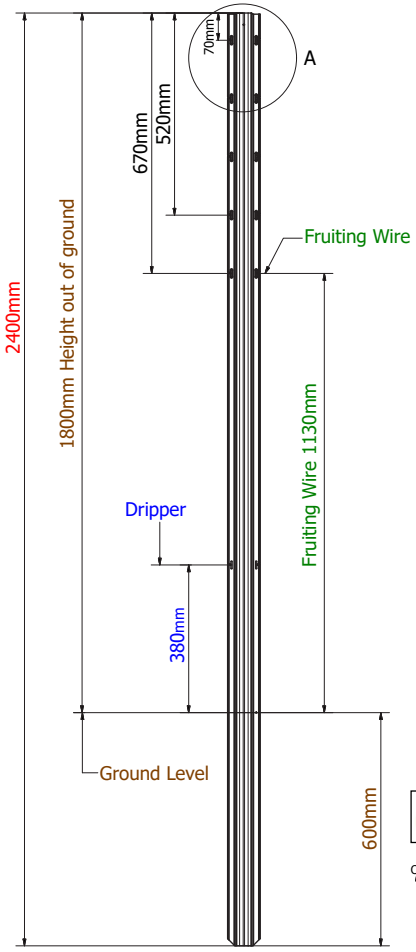
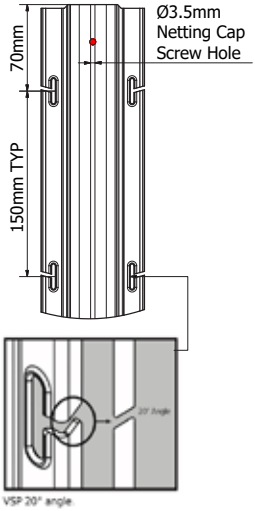
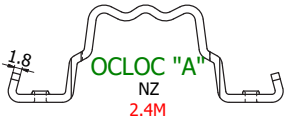
Oclocnz A = ONZ/A2.4/150/6VSP/GL600 @ 1.8mm thick







2.4M
1.8mm thick Galfan coated
6 VSP wire slots per side
150mm pitch
Dripper 380mm from ground level
600mm Ground Level

Ocloc.nz	ONZ/A2.4/150/6VSP/D380/GL600
	Ocloc "A"

ONZ/A2.4/150/6VSP/D380/GL600
- Ground Level
- Dripper Height
- Slots Per Side
- Slot Pitch
- Post Length
- Ocloc "NZ"

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Ocloc.nz™

For further details please contact

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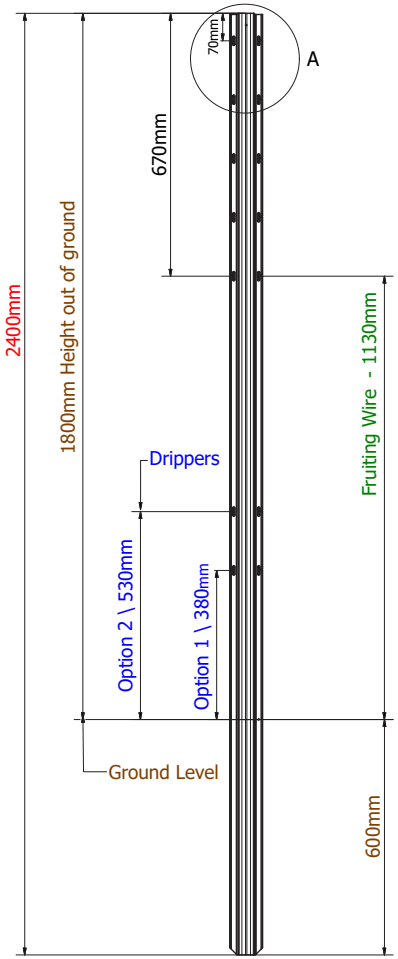
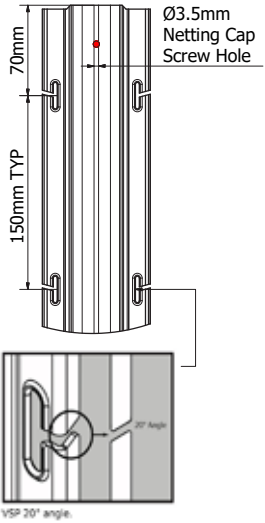
Sam McConway: 027 422 4738

office@oclocnz.co.nz
www.oclocnz.co.nz

Designed & Manufactured in Australia

Oclocnz A = ONZ/A2.4/150/7VSP/GL600 @ 1.8mm thick





1.8mm thick Galfan coated
7 VSP wire slots per side
150mm pitch
Dripper 380/530mm from ground level
600mm Ground Level

Ocloc.nz	ONZ/A2.4/150/7VSP/D380-530/GL600
	Ocloc "A"

ONZ/A2.4/150/7VSP/D380-530/GL600
- Ocloc "NZ"
- Post Length
- Slot Pitch
- Slots Per Side
- Dripper Height
- Ground Level

Ocloc products are carbon neutral at manufacturing — 100% carbon offset —

Ocloc.nz™

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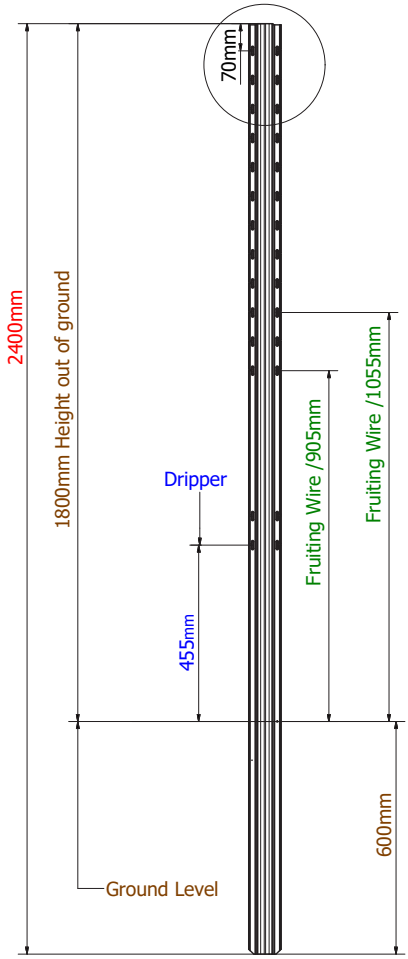
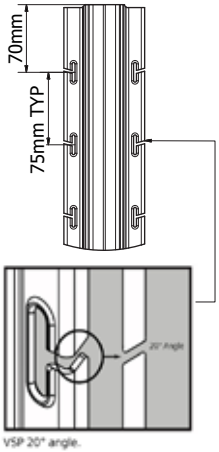
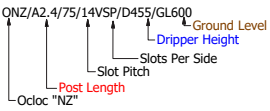




NZ
2.4M
1.8mm thick Galfan coated
14 VSP wire slots per side
75mm pitch
600mm Ground Level
Dripper 455mm from ground level

Ocloc.nz	ONZ/A2.4/75/14VSP/D455/GL600
	Ocloc "A"



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Ocloc™ nz

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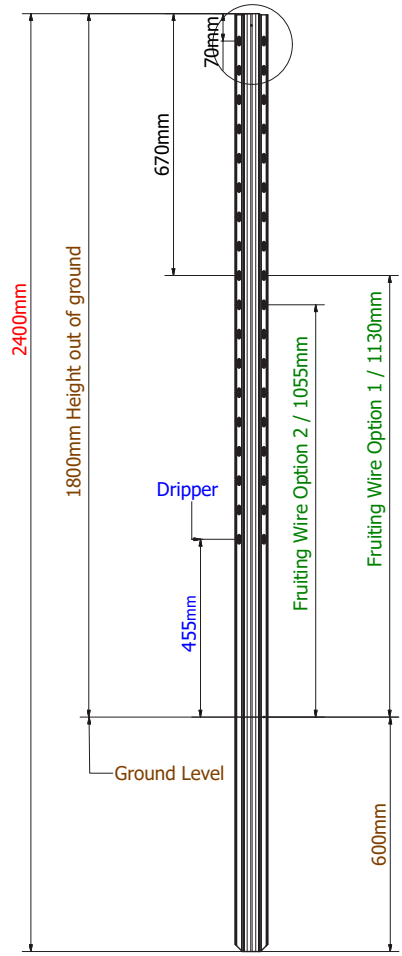

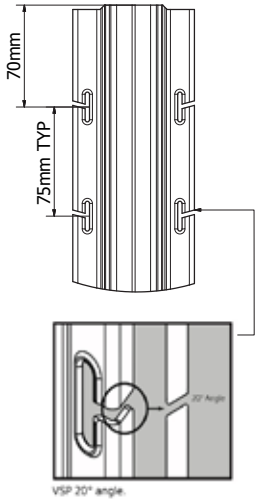

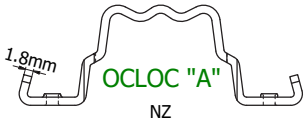

NZ
2.4M
1.8mm thick Galfan coated
18 VSP wire slots per side
75mm pitch
Dripper 455mm from ground level
600mm Ground Level

Ocloc.nz	ONZ/A2.4/75/18VSP/D455/GL600
	Ocloc "A"

ONZ/A2.4/75/18VSP/D455/GL600
- Ocloc "NZ"
- Post Length
- Slot Pitch
- Slots Per Side
- Dripper Height
- Ground Level

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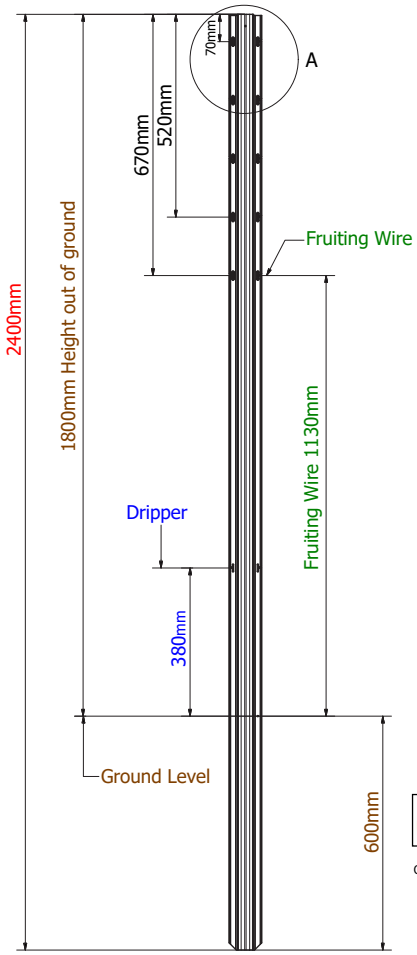
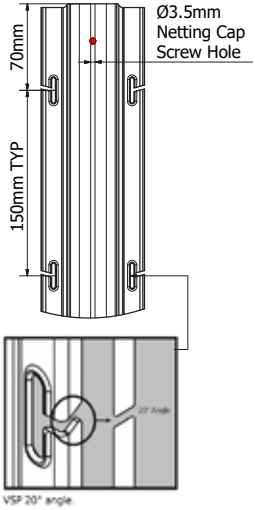
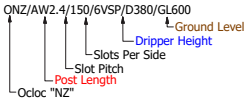
Oclocnz AW = ONZ/AW2.4/150/6VSP/GL600 @ 1.8mm thick





2.4mm thick Galfan coated
6 VSP wire slots per side
150mm pitch
Dripper 380mm from ground level
600mm Ground Level

Ocloc.nz	ONZ/AW2.4/150/6VSP/D380/GL600
	Ocloc "AW"



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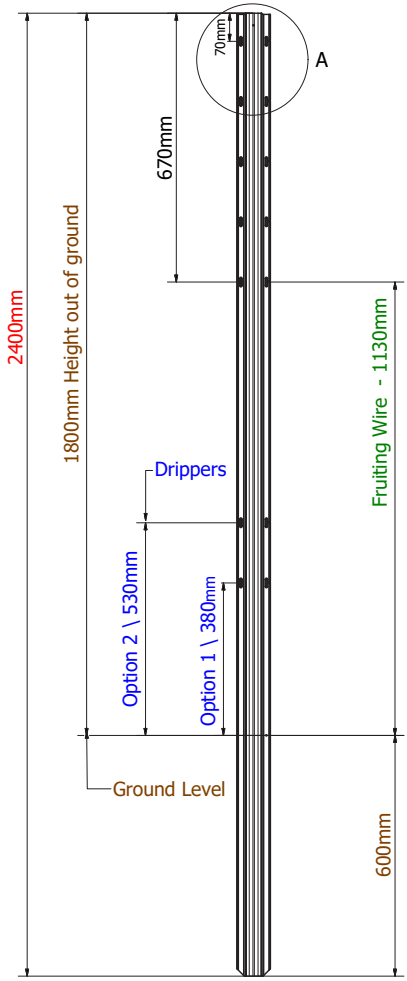
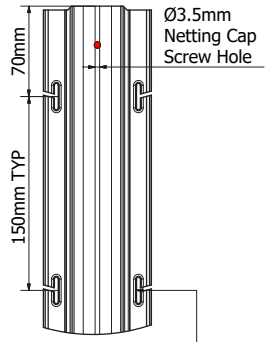
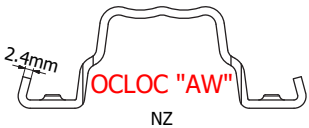
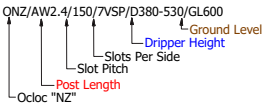






NZ
2.4M
2.4mm thick Galfan coated
7 VSP wire slots per side
150mm pitch
Dripper 380/530mm from ground level
600mm Ground Level

Ocloc.nz	ONZ/AW2.4/150/7VSP/D380-530/GL600
	Ocloc "AW"



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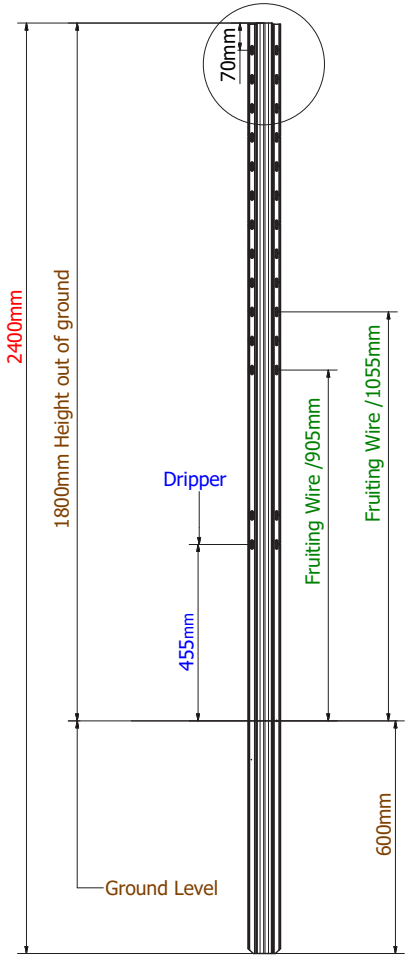

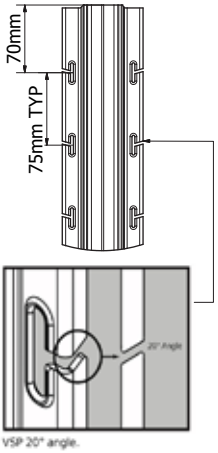

NZ
2.4M
1.8mm thick Galfan coated
14 VSP wire slots per side
75mm pitch
600mm Ground Level
Dripper 455mm from ground level

Ocloc.nz	ONZ/A2.4/75/14VSP/D455/GL600
	Ocloc "A"

ONZ/A2.4/75/14VSP/D455/GL600
- Ocloc "NZ"
- Post Length
- Slot Pitch
- Slots Per Side
- Dripper Height
- Ground Level

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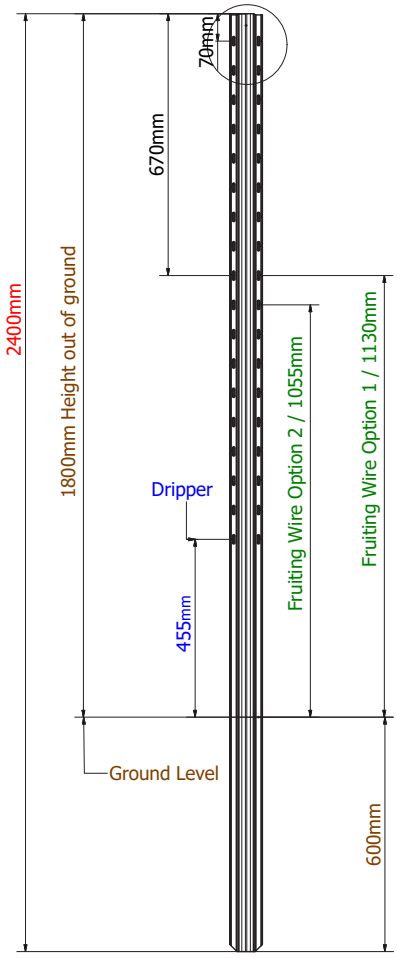
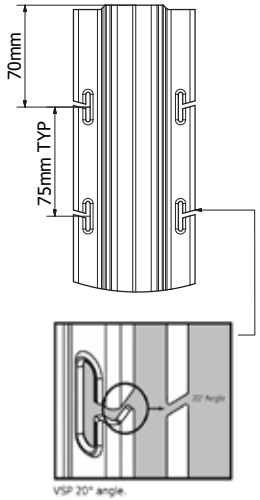
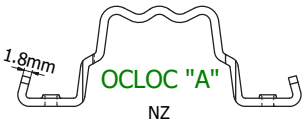
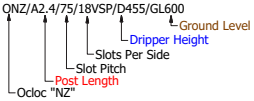






NZ
2.4M
1.8mm thick Galfan coated
18 VSP wire slots per side
75mm pitch
Dripper 455mm from ground level
600mm Ground Level

Ocloc.nz	ONZ/A2.4/75/18VSP/D455/GL600
	Ocloc "A"



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1. Metallic-Coated Products and Specifications

GalvInfoNote 1.9

Zinc-5% Aluminum Alloy-Coated Steel Sheet

Rev 1.1 Jan 2011

Introduction

The most widely used metallic coating for the corrosion protection of steel is zinc (galvanize). It offers a very good combination of galvanic and barrier protection. Its excellent performance for many applications is well documented. However, in the desire to improve, there is always a quest to find even better products. Researchers continually attempt to develop superior steel coatings that can be commercially applied. Often, the target is to find better products for specific end uses or environments, e.g. ones having superior corrosion resistance, or better coating formability. These attempts meet with little success most of the time, due either to an undesirable product attribute, or because manufacturing is too expensive or difficult, but every so often a breakthrough coating is discovered.

One hot-dip coating that was successfully developed is zinc-5% aluminum (Zn-5% Al) alloy-coated steel sheet, the most popular version of which is known throughout the world as **GALFAN**. It is a registered trademark of the Galfan Technology Center, Inc. (GTC) http://galfan.com/home.html. This website lists all the active producing Galfan® licensees.

The GTC website summarizes the history of Galfan® as follows:

> "Galfan® as a trademark has been around since the International Lead Zinc Research Organization (ILZRO) obtained worldwide patents on this new alloy for anti-corrosion coating in 1981. This grew from an ILZRO-organized project co-sponsored by Arbed, Cockerill Sambre, Usinor and Sacilor (now all part of ArcelorMittal), British Steel, Fabrique de Fer de Maubeuge (now all part of Corus), New Zealand Steel (now part of Bluescope), and Stelco (now U.S. Steel Canada) at the Centre de Recherches Metallurgiques (CRM) in Belgium. This project showed that an alloy combining 95% zinc, nearly 5% aluminum, plus specific quantities of rare earth mischmetal, could be reliably used in the hot-dip coating process, and conferred substantially improved performance to the end-product. Licenses to use the revolutionary Galfan® technology have been granted to manufacturers worldwide.
>
> "The name Galfan® was given to the new alloy product during a business meeting one evening after the first large-scale production campaign at Sacilor's, Ziegler S.A. works in Mouzon, France on July 8-10, 1981. Upon reviewing the success of this campaign, in which 150 tonnes of coils were coated, with high quality product obtained after running the first 250 meters of strip through the continuous coating line, J-L. Pagniez, head of the French Coated Steel Information Center (CITAG), christened the product "galvanisation fantastique". This was shortened to Galfan®, and this name was then trademarked by ILZRO."

The ASTM steel sheet product specification for Zn-5% Al alloy-coated sheet is A875/A875M. The coating is available in two types: Type I alloy coating contains small additions of rare earth mischmetal (Zn-5Al-MM) and is what is used to produce sheet under the trade name Galfan®. Type II contains 0.1% magnesium (Zn-5Al-Mg). Zinc-5% Al alloy-coated sheet is also manufactured and sold under other trade names.

Both Type I and Type II can be used for prepainted sheet as specified in A755/A755M.

Specifications EN 10214 and ISO 14788 are other documents that can be used to specify Zn-5% Al coated sheet.

Manufacture

In the 1970s, research in America, Europe, and Japan experimented with zinc coatings containing up to 15% aluminum. This research found that zinc with 5% aluminum provided the best corrosion resistance but the problem of small, unwetted bare spots stymied commercialization of the alloy as a coating[1].

Research that ILZRO later commissioned CRM to conduct on the Zn-5% Al system determined that the addition of small amounts of rare earth mischmetal[1] containing cerium and lanthanum improved fluidity, wettability, coating ductility, and inhibited intergranular corrosion. This mischmetal formulation is what later became known as Galfan®.

Composition of the mischmetal-bearing alloy used to produce GALFAN is specified in ASTM B750. The technology used to manufacture this alloy is *licensed technology*[1]. Also, see GalvInfoNote 5.2 for the specified chemistry limits.

Galfan® sheet products are coated on processing lines that are almost identical to those used to produce galvanized sheet, and which are described in GalvInfoNote 2.1. In some cases, production lines that produce Zn-5% Al coatings are dedicated to this product, although most lines that produce GALFAN also produce galvanize through the use of dual, interchangeable coating pots.

Coating Metallurgy and Microstructure

Zinc with 5% aluminum is a *eutectic alloy*. A *eutectic composition* is that ratio of elements having the lowest melting temperature, and is located at the intersection of the elements' liquidus curves in a *phase diagram* (a representation of what occurs when elements are mixed together). The *eutectic* is a unique temperature-composition *point* for two or more elements. Lowering the temperature to just below the *eutectic temperature* results in a reaction where the all of the liquid mixture freezes to a complete solid at that temperature. In non-eutectic mixtures, freezing occurs over a range of temperatures, and elements can segregate into phases. For more information on this phenomena refer to literature about the zinc-aluminum phase diagram, as a more detailed explanation here is beyond the scope of this GalvInfoNote.

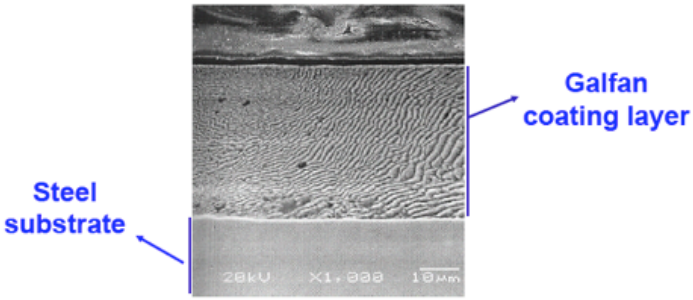

Figure 1 Microstructure of Zn-5% Al Coating (note the lamellar plate-like structure) [1]

Regular zinc galvanizing alloys freeze into a single-phase microstructure. Al-Zn alloys such as Galvalume® form two-phase microstructures in which aluminum phases are surrounded by the lower freezing temperature zinc phase (see GalvInfoNote 1.4). Galfan®, however, forms a *hypoeutectic* microstructure in which the high zinc phase and high aluminum phase freeze into very thin, alternating parallel plates called lamellae, as shown in Figure 1. Control of the cooling rate is necessary to ensure that the entire microstructure is lamellar.

The intermetallic alloy layer that forms between the Galfan® coating and the steel substrate is a very thin (1 μm) ternary Al-Fe-Zn compound. This layer is thinner than a similar layer that forms on galvanized sheet, and is the reason for the extremely good formability of Galfan®.

[1] The mischmetal used in GALFAN is a mixture of cerium (Ce), lanthanum (La), two of the 15 elements between atomic numbers 57 and 71, sometimes called rare earths. Their percentage in the alloy is extremely small but their effect in improving wettability is very significant.

Corrosion Resistance

Aluminum corrodes more slowly than zinc in most atmospheres because of its surface barrier layer of very passive aluminum oxide. However, this passive layer prevents aluminum from adequately contributing towards cathodic (sacrificial) protection. Cathodic protection is the strong point of zinc coatings, in that if the coating is cut or scratched, the zinc near the exposed steel will corrode first. Galfan® combines the strengths of both zinc and aluminum, giving better passive barrier protection than regular galvanize, and better sacrificial protection than alloy coatings with lower zinc compositions.

Regular galvanized coatings corrode in the atmosphere by the zinc being continually converted to zinc oxide and zinc carbonate. The lamellar eutectic microstructure of Galfan®, shown in Figure 1, interferes with this mechanism, as corrosion must follow the direction of the thin lamellae. Also, the dense, more passive, aluminum-rich corrosion products that are left behind lower the reactivity of the surface. Naturally, corrosion will be slowest when the lamellae are parallel to the sheet, but even the random orientation that the lamellae usually take greatly reduces the corrosion rate.

Galvanize exhibits a linear corrosion rate. ILZRO research has shown that the corrosion rate of Galfan® is parabolic rather than linear. Galfan's weight loss during the first two or three years is slightly less than galvanize, but as its surface passivates, it's rate of weight loss decreases parabolically. This is illustrated in Figure 2.

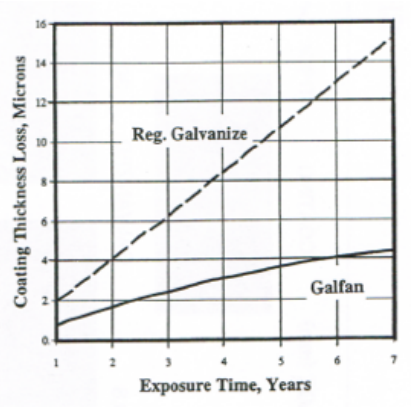

Figure 2 Coating Thickness Loss in Marine Environment from New Zealand Steel Study[1]

The results of field studies have shown that Galfan® has a minimum of two times better outdoor corrosion resistance than conventional galvanize of the same coating weight. This is the case in rural, industrial, and marine environments.

The issue of whether to use galvanize or Galfan® for a particular end use therefore becomes one of overall value versus initial cost. If the objective is to have products last over 2 times longer than those made with galvanize, then the same coating weight as used with galvanize can be specified. If lower initial cost is paramount, then the same service life can be obtained by specifying one-half the normal galvanize coating weight.

Summary

Years of testing and evaluation have allowed the comparison chart shown in Figure 3 to be compiled. It shows that Galfan® is equal to or better than galvanize in all the important coated sheet attributes.

Compare Galfan to Other Coatings

	Galfan	Hot-dipped Galvanized	Electro-galvanized	Galvanneal	Galvalume
Formability	5	3	5	3	3
Corrosion Resistance (bare)	4	3	3	2	5
Sacrificial Protection	5	5	5	5	3
Corrosion Resistance (formed)	5	3	3	3	3
Paint Adhesion	5	4	5	5	4
Corrosion Resistance (painted)	5	4	4	5	3
Weldability	4	4	5	5	2
Heat Resistance / Reflectivity	3	3	3	2	4

Note: 6 = Best 1= Worst

Source: Galfan Technical Resource Centre

Figure 3 Galfan® Compared to Other Metallic Coatings

Zinc-5% aluminum hot-dip coated sheet has corrosion resistance at least twice as good as galvanize. It has been in use for 25 years and has application in many markets, including construction, agriculture, appliance, automotive, highway, and utility.

More information on this product can be found at: http://galfan.com/home.html

References:

[1] GALFAN Product Manual, ILZRO, June 1993

Ocloc Endorsements

"We've been using Ocloc V for a number of years, ¼ the cost of traditional post replacement, a complete game changer & no brainer"

Darren Sheer. Barrossa Grant Burge

"Ocloc repair system is a great low-cost strong fix for what has been a very expensive problem, until now"

Richard Leaske. Hither n Yon

"Maintain your organic status"

Notes

Ocloc Endorsements

"I have been trialling metal post since 1990 & Ocloc A&AW are the best metal post I have used. The Ocloc A and thicker AW are stronger and wider than other metal posts and the re-enforced wire holes make fixing wires very easy and reliable. We have seen a marked reduction in our trellis instillation costs due to the ease & speed of instillation. Since 2016 we have installed 50 ha of only Ocloc's. The A, AW and the strainer system. We are really happy with the strength and the harvesting results of the Ocloc's, highly recommend these post as they save time, money and the environment"

Shingleback Vineyards, McLaren Vale. John Davey

Notes


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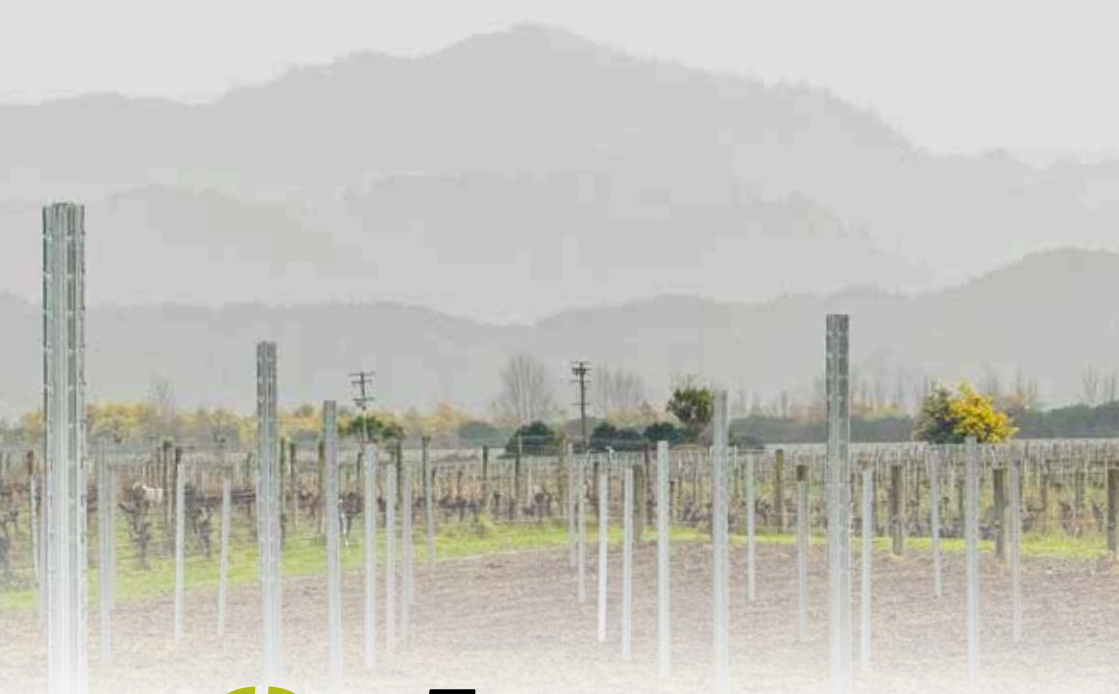

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