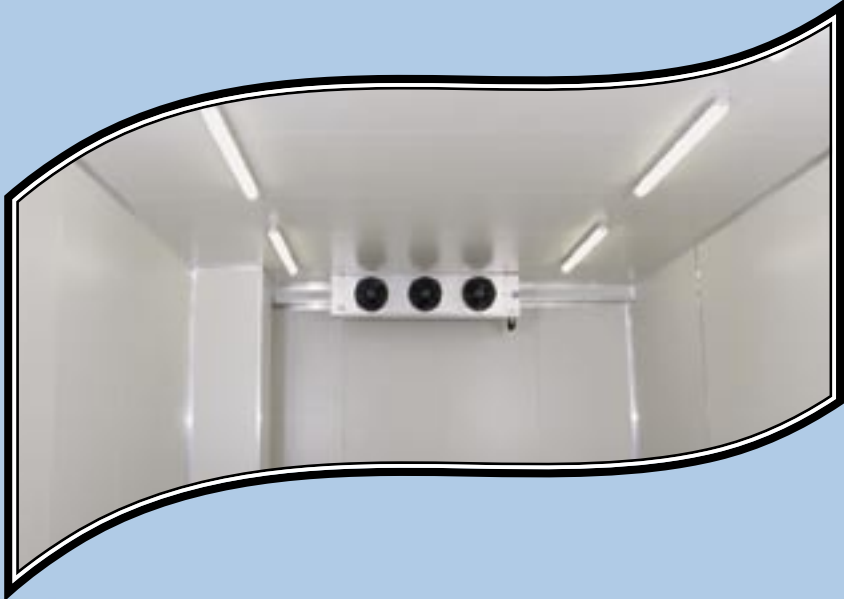




COLORSTEEL® CP  
ANTIBACTERIAL



## INTRODUCTION

New Zealand Steel Limited's COLORSTEEL® CP Antibacterial coated steel has been specifically developed for the food and related sectors. COLORSTEEL® CP Antibacterial comprises traditional zinc-coated steel sheet coated with a custom formulated paint system.

COLORSTEEL® CP Antibacterial is particularly suited for internal applications where its anti-bacterial properties will be most effective.

## STEEL SUBSTRATE

Galvanised G300 Z275 AS1397 steel is used as the substrate in the manufacture of COLORSTEEL® CP Antibacterial steel.

## PAINT SYSTEMS

COLORSTEEL® CP Antibacterial steel is only available in the colour Titania, which incorporates Microban® anti-bacterial technology.

Microban® is the world's leading anti-bacterial technology. Incorporated into the paint system, it inhibits the growth of bacteria that come in contact with COLORSTEEL® CP Antibacterial, including organisms that can cause odours, stains, contamination, food poisoning and allergies.

The specially formulated backer coat has been developed to combine with readily available adhesives to form a strong bond with the panel core.

## OTHER COLOURS

For sandwich panel applications requiring colours other than Titania, the product should be ordered as COLORSTEEL® CP steel, which does not contain the Microban® anti-bacterial additive.

It is generally recommended that lighter colours be utilised for insulated panel applications. This is because the higher surface temperatures achieved on dark coloured panels, which are externally exposed in service, can cause degradation of the insulation core material, and ultimately result in delamination of the steel skin from the core. However, given that the maximum temperature of different colours can vary according to climate, and that the maximum service temperature of the core will depend upon its composition, it may still be possible to develop a suitable sandwich panel system utilising dark coloured skins. It is therefore recommended that you contact your nearest insulated panel supplier, for assistance in determining the suitability of other colours for your proposed application.

## ANTIBACTERIAL CHARACTERISTIC

The Microban® anti-bacterial additive is incorporated into the painted topcoat of COLORSTEEL® CP Antibacterial steel, during the paint manufacturing process to provide anti-bacterial properties for the life of the product.

The effectiveness of the paint system used for COLORSTEEL® CP Antibacterial steel has been tested by an independent UK-based microbiology laboratory in accordance with JIS Z2801:2000, globally the most widely used protocol for testing of anti-bacterial performance. Under such test conditions, paint systems with the Microban polymer additive were found to be extremely effective against *Staphylococcus aureus* and *Escherichia coli* o157, both of which can be of particular concern in maintaining food hygiene standards. Even after simulated cleaning for 10 years using typical coolroom detergents, the paint system was still found to exhibit highly effective anti-bacterial performance.

For further detail, please visit the following website link: <http://www.nzsteel.co.nz/go/colorsteelcp>

**Warning:** Use of COLORSTEEL® CP Antibacterial steel is not a substitute for good hygiene practices. Its proper use however, significantly increases the level of protection against bacteria in between cleanings, and regular cleaning will not wash off the anti-bacterial protection. However, note that any damage to the topcoat surface will result in a reduction in anti-bacterial properties. Also be aware that food items should not be stored in intimate contact with COLORSTEEL® CP Antibacterial steel.

## PERFORMANCE

COLORSTEEL® CP insulated panel steel has been used successfully for more than 20 years to manufacture composite panels that are used for both walls and ceilings in coolrooms. The same track record of performance can also be expected from COLORSTEEL® CP Antibacterial steel, with both products backed by a 15 year warranty against corrosion. For full warranty terms and conditions contact New Zealand Steel.

## INSTALLATION GUIDE

Coolrooms manufactured from COLORSTEEL® CP Antibacterial steel, are very easy to install. However, we recommend that you seek professional advice prior to designing and constructing your coolroom.

## HANDLING AND FORMING

COLORSTEEL® CP Antibacterial, CP and CPz prepainted steel must be carefully handled during transport and fabrication to avoid damaging the high quality surface finish. Examine the material carefully when it is delivered. Any faults in the product should be reported immediately and shall be made good by the supplier. Experience has shown that roll-forming lubricants have an adverse effect on the decorative and physical properties of prepainted steel. New Zealand Steel does not recommend the use of roll-forming lubricants on COLORSTEEL® prepainted steel products.

## STORAGE

If COLORSTEEL® CP Antibacterial, CP and CPz prepainted steel is to be stored for any time prior to manufacture or placement, it must be stored in dry, well-ventilated conditions. Incorrect storage promoting water entrapment between panels (including condensation) may irreparably damage the coating system or promote colour change.

## DESIGN:

**Listed below are factors you should consider:**

- The lightweight nature of a composite panel coupled with a structural capability may make the need for an internal frame for smaller projects obsolete.
- In a coolroom, moisture is ever present. It is paramount to the overall corrosion performance that water must be allowed to drain freely away from a composite panel. This is critical at the base of the panel where poor detailing can allow water to come in contact with the foam core. Once moisture is trapped in a panel, corrosion will be accelerated.
- It is recommended that a dwarf masonry wall be incorporated in the coolroom design. This will allow water to drain away and also protect the base of the coolroom wall.
- Bottom channels of the walling should be manufactured from compatible materials and be designed to allow water to drain freely.

The run off from condensers should not be allowed to discharge via copper pipes over COLORSTEEL® prepainted steel products. All run off should be diverted away from the COLORSTEEL® prepainted steel surface.

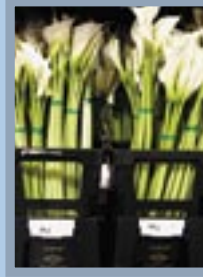
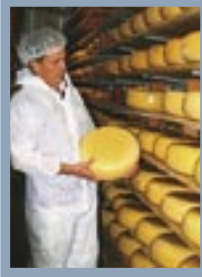
**Note:** It is a condition of the New Zealand Steel warranty that your design, construction, installation and ongoing maintenance prevent moisture ingress into panel cores and joins throughout the life of the product. It is also a condition of the warranty that the recommendations set out in this Data Sheet be complied with.

Various panel manufacturers have different methods of joining panels. Most employ a variation of a male/female slip joint. Both corrosion performance and the efficiency of the coolroom will be affected if particular attention is not paid to these joints, which must fit snugly together to stop the ingress of moisture. Most panel manufacturers stipulate that sealants be incorporated into all slip-joints. This is especially important if the panels are to be washed down regularly. Mastic type vapour barriers are also recommended for some installations.

## GOOD PRACTICE:

The following good practice is recommended:

- Cleaning chemicals used for cleaning coolrooms should only be used in concentrations and contact durations, as prescribed by the chemical supplier. In any event, the concentration of the cleaning solution should not exceed 5%.
- The use of soft nylon bristle brooms coupled with water pressures of less than 400 psi (2760kPa) is recommended.
- Regular inspection of slip joints and the general detailing of the coolroom will highlight problems before they become major concerns.
- Monitoring of sealant performance at the base of the panel is critical to prevent water ingress.
- Once moisture has entered the panel, it will expand when frozen, causing the panel to bulge. This causes the seals to be broken and moisture-laden air to enter the panel, causing the panel to bulge further, greatly diminishing the efficiency of the coolroom.
- Bulging of panels could indicate that moisture has entered the panel through the following means:
  - a poorly sealed slip joint
  - a gap that has developed between the bottom channel and the panel
  - a panel has been punctured by, for example, forklift tines
- Consideration should be given to means of preventing damage to coolroom walling incurred whilst handling stock stored within and around the coolroom.



The information and advice contained in this Data Sheet is of a general nature only, and has not been prepared with your specific needs in mind. You should always obtain specialist advice to ensure that the materials, approach and techniques referred to in this Data Sheet meet your specific requirements.

New Zealand Steel Limited makes no warranty as to the accuracy, completeness or reliability of any estimates, opinions or other information contained in this Data Sheet, and to the maximum extent permitted by law, New Zealand Steel Limited disclaims all liability and responsibility for any loss or damage, direct or indirect, which may be suffered by any person acting in reliance on anything contained in or omitted from this document.

**Warranty terms and conditions apply. To determine the eligibility of your coolroom project for a New Zealand Steel warranty, contact New Zealand Steel.**

**FURTHER INFORMATION**

For additional information, literature or technical assistance, please contact:

Marketing and Sales  
 New Zealand Steel Limited  
 Private Bag 92 121, Auckland 1142  
 Telephone: 0-9-375 8999  
 Facsimile: 0-9-375 8213  
 Free Phone: 0800 100 523  
 Email Address: info@colorsteel.co.nz  
 http://www.nzsteel.co.nz/go/colorsteelcp

**COLORSTEEL® CP Antibacterial**  
 COATED STEEL FOR INSULATED PANELS



COLORSTEEL® is a registered trademark of New Zealand Steel Limited.



Microban™ is a registered trade mark of Microban Products Company, Huntersville, North Carolina, USA and is used by New Zealand Steel under licence.

BlueScope Steel holds an exclusive licence for the Microban® technology and the Microban® trade mark in Australia and New Zealand for pre-painted steel composite panels.

**NOTE:** With New Zealand Steel Limited's commitment to continuous improvement, information provided in this publication may be subject to modification. At the time of publication we believe the information contained in this document is the best available. Nonetheless, we reserve the right to modify any product, technique, equipment or statement to reflect improvements in the manufacture and application of coil coated products. The information is supplied without prejudice to New Zealand Steel Limited's standard terms and conditions of sale. In the event of any conflict between this information and the standard terms and conditions, the standard terms and conditions shall prevail.

Copyright© 2009 New Zealand Steel Limited.

NEW ZEALAND STEEL  
 100% RECYCLABLE



Kiwi to the core



New Zealand Steel Limited, Private Bag 92 121, Auckland 1142, New Zealand. Ph 0-9-375 8999 Fax 0-9-375 8213