



**NEW**

PAINT SYSTEM  
SUPER POLYESTER *TECHNOLOGY*

DESIGNED FOR

**VISIONARIES**

BUILD FOR

**NATURE**

*clean*

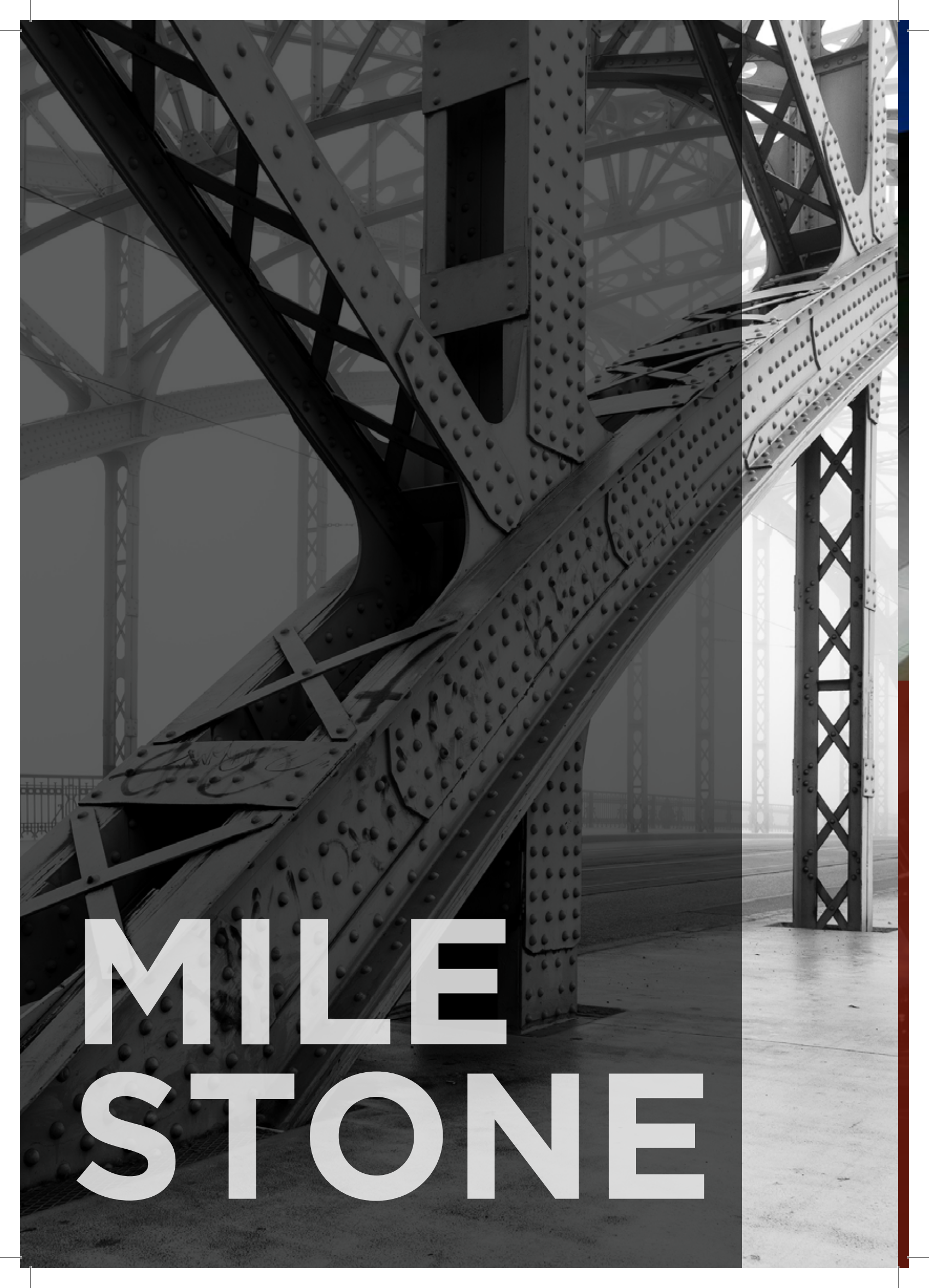
**Colorbond®**



# CLEAN COLORBOND® STEEL

Clean COLORBOND® steel combines the superior strength of aluminium-zinc alloy-coated steel with proprietary paint system technology exclusive to Bluescope.

Clean COLORBOND® steel undergoes continuous research and development, with stringent product testing in the harshest environments.



# MILE STONE



## 2016

- Latest technology super polyester to enhance colour performance

## 2012-2014

- Introduce pastel colours
- Repackage IR reflective technology as Thermatech® technology
- Introduce low gloss paint extension in 2014

## 2009

- Improved delamination with weatherable primer

## 2004

- Improved polyester topcoat and add IR reflective pigments: Longer Lasting, Cooler Roof

## 2000

- Clean Technology to resist tropical staining

## 1996-1998

- Clean Colorbond® steel manufactured by PT NS BlueScope Indonesia
- Excellence corrosion resistance (AZ150)
- Excellence colour performance



COOL

**THERMATECH®**  
CREATES A COOLER BUILDINGS

# OPTIMAL PAINT SYSTEM FOR ENDURING QUALITY

BlueScope utilities optimum paint formulation and pigment blends to provide excellent long-term colour stability for Clean COLORBOND® steel products.

First, an effective coating is prepared and a corrosion inhibitive primer is applied for adhesion of the top coat on the substrate and to provide additional corrosion resistance. This is followed by application of the paint top coat with optimum paint thickness to maximize the paint performance against weathering. The multiple coating system layers act in synergy to provide superior performance and durability.

The proprietary paint system is a result of extensive R&D testing, including actual field exposure testing. It has been proven that the paint system used for Clean COLORBOND® steel provides superior durability against weathering and UV penetration when compared with other pre-painted steel.

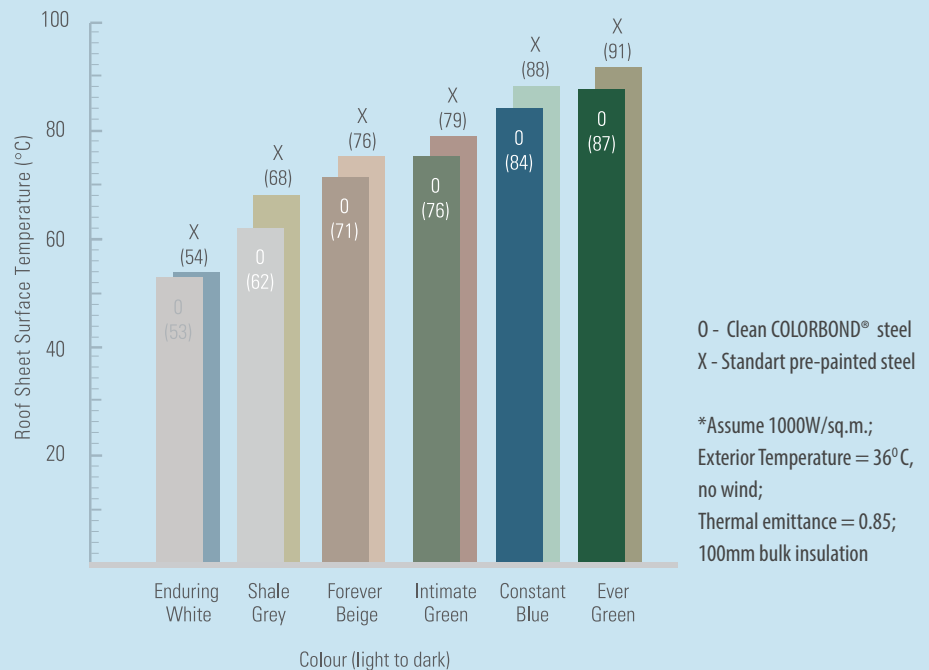
With Thermatech®, your building surface reflects more sun's rays, absorb less heat, and create a cooler surface temperature, a highly important feature for the harsh tropical climates.

## COMFORTABLE MASTERPIECE

Clean COLORBOND® steel with Thermatech® reduces the heat of your building surface by reflecting solar radiation, preventing heat from traveling downwards.

Clean COLORBOND® steel gives a better comfort for buildings in tropical areas. Thus a Clean COLORBOND® building uses less energy and provide more comfort.

Comparison of roof sheet temperatures (insulated\*):



The temperature of the roof sheet is lowered due to the Thermatech® technology in Clean COLORBOND® steel. This in turn cuts down the heat radiation traveling downwards into the building making the interior of the building cooler.

### Comparison of surface temperature

Thermatech® solar reflectance technology is able to lower the temperature by absorbing less heat from the sun as illustrated below.





# COLORFUL

**BEAUTIFUL  
YET  
ELEGANT**

Clean COLORBOND® steel using the newest painting technology that gives excellent color stability without affecting the durability. Super Polyester Paint System Technology in the Clean COLORBOND® steel give beauty you can dream of your building.

# NEW PAINT SYSTEM

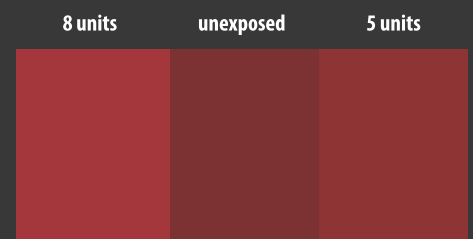
## ***SUPER POLYESTER TECHNOLOGY***

BlueScope's Product Innovation Technology had developed the next generation of highly durable **Super Polyester Paint** system.

This latest product innovation is currently used in **Australia since 2013** to provide supreme colour performance:

- Improved Gloss Retention (%)
- Improved Chalking Resistance
- Lesser Colour Fading (Delta E)

*Fade is the loss of color calculated in Hunter ΔE units in accordance with ASTM D2244-02 procedures. One ΔE units denotes the smallest degree of color change visible to naked eye.*



*Two rows of colored coated metal panels depict color change (fade) of eight (8) ΔE Hunter Units and five (5) ΔE Hunter Units. One ΔE Hunter unit denotes the smallest degree of color change visible to the naked eye.*

No Changes in the Product DNA except topcoat formulation change to New Paint System Super Polyester Technology

Ingredient Description	Clean COLORBOND® XRW	Clean COLORBOND® ULTRA
Steel Grade	G550 / G 300	G550 / G 300
Metallic Coating	AZ150	AZ200





CLEAN

**CLEAN TECHNOLOGY**  
RESIST TROPICAL DIRT STAINING

# LONG LASTING BEAUTY

A combination of airborne particles, heat and humidity sticks on the surface of a steel sheet will bond and create dark stains on the building material. Over time, the building will look dirty and aged. Clean COLORBOND® steel's unique paint system prevents this bonding process, making the dirt particles remain loose and washable by rainfall for a brand new look at all times.

## KEEP YOUR MASTERPIECE PRIME

BlueScope developed a revolutionary paint system, which resist dirt staining. Dirt staining is caused by a combination of airborne particles, heat and humidity. On conventional pre-painted steel, airborne particles like dirt settle on the pre-painted steel surface. The combination of heat and humidity then results in dirt particles bonding to the pre-painted steel surface. This eventually forms dark stains on the building material. Over time, the building will look dirty and aged.

The unique Clean COLORBOND® steel paint system prevents dirt from bonding to the surface of Clean COLORBOND® steel (figure A), as compared to other pre-painted steel paint system where dirt particles can bond to the surface (figure B).



Figure A

Microscopic pictures shows dirt not bonding to the surface of Clean COLORBOND® steel.



Figure B

Microscopic pictures shows dirt not bonding to the surface of conventional pre-painted.

**CLEAN TECHNOLOGY RESIST DIRT PARTICLES FROM BONDING WITH THE SURFACE.**



Clean COLORBOND®  
steel

Conventional  
pre-painted steel

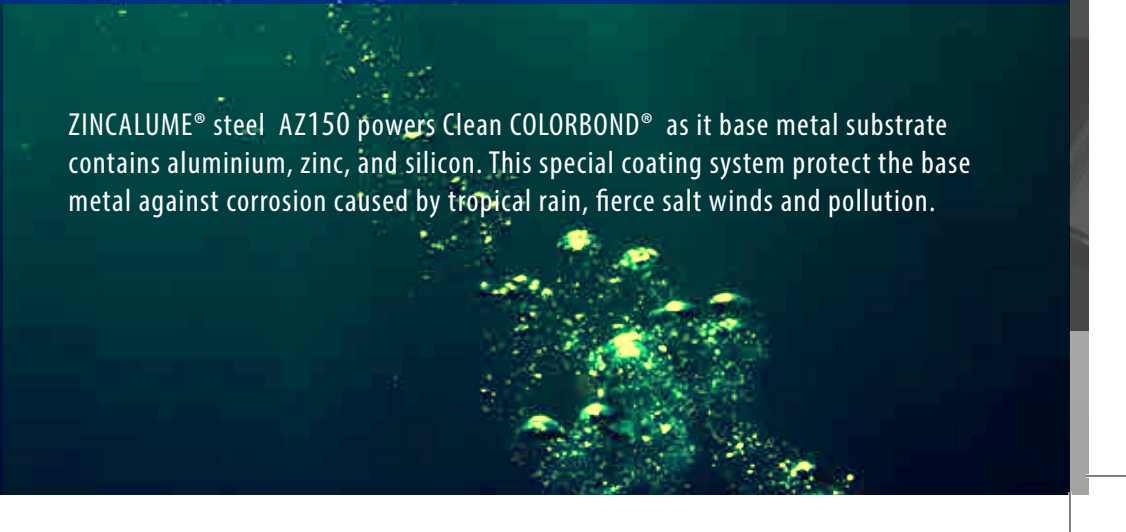




# DU RA BLE

**PEACE  
OF  
MIND**

ZINCALUME® steel AZ150 powers Clean COLORBOND® as its base metal substrate contains aluminium, zinc, and silicon. This special coating system protects the base metal against corrosion caused by tropical rain, fierce salt winds and pollution.



# PROTECT YOUR BUILDING FROM CORROSION

## CLEAN COLORBOND® WITH ZINCALUME® STEEL METALLIC COATING

A chemical reaction called oxidation will break metal such as steel, resulting in rust or oxides around the corroded area.

Clean COLORBOND® steel is incorporated with BlueScope proprietary metallic coating technology - the Zinc-Aluminium ZINCALUME® alloy-coated steel as base substrate. With 55% aluminium 43.5% zinc, and 1.5% silicon.

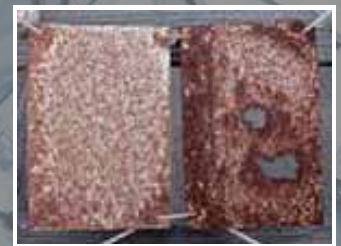
ZINCALUME® steel stays in a good condition after compared to a galvanised.

## HOW DOES IT WORK?

Zinc is an active metal that protects less active metal (such as steel) from corrosion by sacrificing itself and getting corroded first. Combined with Aluminium as a strong barrier that resists corrosion, ZINCALUME® steel provides a durable and effective protection against corrosion.



ZINCALUME steel



Galvanised steel



Bellambi Point site, Australia

## CROSS-SECTION OF CLEAN COLORBOND® STEEL

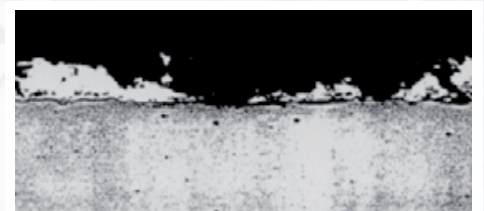
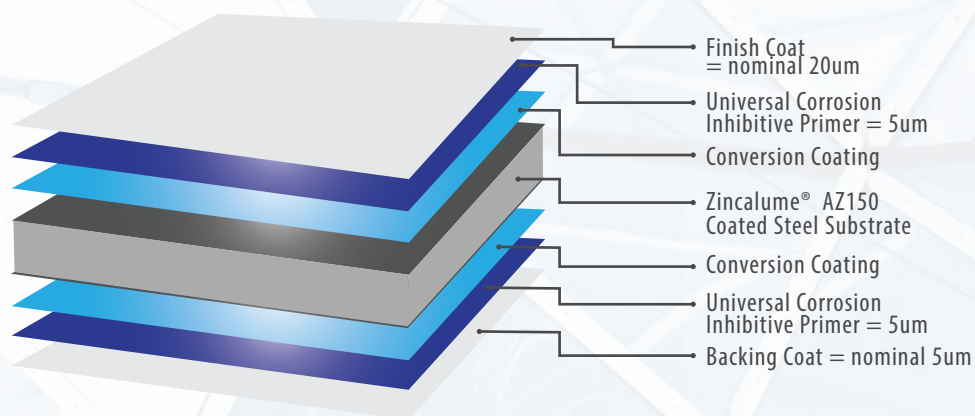


Figure A - Microscopic view of Galvanised steel

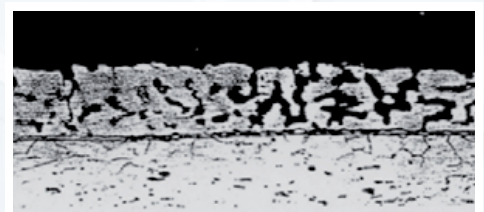


Figure B - Microscopic view of ZINCALUME steel

# COLOUR

**INSPIRE  
GREAT  
CREATION**

BlueScope utilizes optimum paint formulation and pigment blends to provide excellent long-term colour stability for Clean COLORBOND® colour choices and comes in a variety of colours to suit your individual needs.

The proprietary paint system is a result of extensive R&D testing, including actual field exposure testing. It has been proven that the paint system used for Clean COLORBOND® steel provides superior durability against weathering and UV penetration when compared with other pre-painted steel.

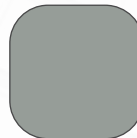
## STANDARD



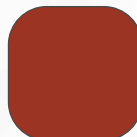
Heritage Red



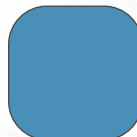
Coral Blue



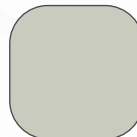
Armour Grey



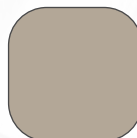
Bart Red



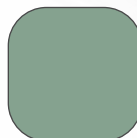
Sonata Blue



Gull Grey



Angsana Stone



Mist Green



Off-White

## NON - STANDARD



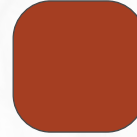
Pine Green



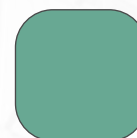
Tobac Brown



Caufield Green



Fall Red



Mintsea Green



Lazurite Blue

\*warna hanya sebagai referensi. Untuk warna sebenarnya, gunakan sample coupon warna.

# CLEAN COLORBOND® ULTRA STEEL

**A HEAVY  
DUTY  
BEAUTY**

## GENERAL DESCRIPTION

Clean COLORBOND® Ultra prepainted steel specifically design by NS BlueScope, combines long term durability and exceptional corrosion resistance. Its substrate conforms to Australian Standard AS1397:2001 whilst its paint coating conforms to AS/NZS 2728:2007

## TYPICAL USES

Exterior building profiles in applications requiring excellent corrosion resistance. Suited to moderately severe marine and industrial environments (typically 100-200 m from the source of the severe environment).

## COATING DESCRIPTIONS

Preferred Substrates	: Zinalume® ULTRA steel G550 AZ200 (Zn/Al Alloy-Coated Steel) Zinalume® ULTRA steel G300 AZ200 (Zn/Al Alloy-Coated Steel)
Pre-treatment	: Corrosion resistant proprietary conversion coating
Topside Primer Coat	: Universal corrosion inhibitive. Nominal thickness : 5 micron.
Finishing Coat	: Custom formulated system. Nominal film thickness 20 micron. On the top or weather side. The finish coat can, if required, be applied to both sides to provide a double-sided product.
Backside Primer Coat	: Universal corrosion inhibitive. Nominal thickness : 5 micron.
Backing Coat	: Custom Formulated Bass Grey

# CLEAN COLORBOND® XAL

## INNOVATION MEETS CAPABILITY

### GENERAL DESCRIPTION

Clean COLORBOND® XAL is a prepainted aluminium that has long lasting, durable good workability, lightweight alternative to other cladding materials. Aluminium has high capability with other material. Aluminium provides high thermal insulations and minimal maintenance to remain corrosion-free.

### TYPICAL USES

High performance roofing, walling, architectural panels and building accessories.

### COATING DESCRIPTIONS

Preferred Substrates	: Aluminium Alloy 3105 H16
Pre-treatment	: Corrosion resistant proprietary conversion coating
Topside Primer Coat	: Universal corrosion inhibitive primer. Nominal thickness : 5 micron.
Finishing Coat	: Custom formulated (PVDF), Nominal thickness 20 micron . On the top or weather side. To provide premium durability product.
Backside Primer Coat	: Universal corrosion inhibitive Nominal thickness : 5 micron.
Backing Coat	: Custom Formulated Snowgum Green. Nominal Thickness : 5 micron

# CLEAN COLORBOND® XPD STEEL

**COLOR  
THAT MADE  
TO LAST**

## GENERAL DESCRIPTION

Clean COLORBOND® XPD steel has been developed by Bluescope to provide premium durability in excellent weather ability & high form ability for exterior application.

## TYPICAL USES

Prestigious roofing and walling, architectural panels and building accessories requiring excellent colour and glass retention.

## COATING DESCRIPTIONS

Preferred Substrates	: Zinalume® steel G550 AZ150 (Zn/Al Alloy-Coated Steel) Zinalume® steel G300 AZ150 (Zn/Al Alloy-Coated Steel)
Pre-treatment	: Corrosion resistant proprietary conversion coating
Topside Primer Coat	: Universal corrosion inhibitive Nominal thickness : 5 micron.
Finishing Coat	: Custom formulated system. PVDF coating system. Nominal thickness 20 micron on the top or weather side. The finish coat can, if required, be applied to both sides to provide a double-sided product.
Backside Primer Coat	: Universal corrosion inhibitive Nominal thickness : 5 micron.
Backside Coat	: Custom Formulated Snowgum Green. Nominal Thickness : 5 micron



# CLEAN COLORBOND® XRW STEEL

## THE ANSWER FOR YOUR NEEDS

## GENERAL DESCRIPTION

Clean COLORBOND® steel reflects BlueScope enduring qualities – innovative, superior, cutting-edge, and trend leading. With our Thermatech® solar reflectance technology, our dirt-resisting Clean Technology, and durable paint and base substrate, we are helping to create a future that is comfortable not just for people, but the landscape too.

## TYPICAL USES

For prestigious roofing, walling, architecture panels, and building accessories.

## COATING DESCRIPTIONS

Preferred Substrates	: Zinalume® steel G550 AZ150 (Zn/Al Alloy-Coated Steel) Zinalume® steel G300 AZ150 (Zn/Al Alloy-Coated Steel)
Pre-treatment	: Corrosion resistant proprietary conversion coating
Topside Primer Coat	: Universal corrosion inhibitive Nominal thickness : 5 micron.
Finishing Coat	: Custom formulated system. Nominal film thickness 20 micron. On the top or weather side. The finish coat can, if required, be applied to both sides to provide a double-sided product.
Backside Primer Coat	: Universal corrosion inhibitive. Nominal thickness : 5 micron.
Backing Coat	: Custom Formulated Shadow Grey Nominal Thickness : 5 micron



**PT. NS BLUESCOPE STEEL INDONESIA**

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