

**TATA STEEL**



## **Colorcoat® for agricultural buildings**

Metal building envelopes





# TATA STEEL AND COLORCOAT®

## About Tata Steel

Tata Steel, formerly known as Corus, is one of Europe's largest steel producers. We serve many different and demanding markets worldwide, including aerospace, automotive, construction, energy and power, and packaging. Our primary steelmaking operations in the UK and the Netherlands are supported by a global sales and distribution network.

Innovation and continuous improvement are at the heart of our performance culture. We aim to create value by offering a sustainable and value-added steel product range supported by unrivalled customer service. By working in partnership with you, we find the best solutions to meet your needs and help your business to perform.

Our European operations are a subsidiary of Tata Steel Group, one of the world's top ten steel producers. With a combined presence in nearly 50 countries, the Tata Steel Group including the Europe operations, Tata Steel Thailand and NatSteel Asia, has approximately 80,000 employees across five continents and a crude steel production capacity of over 28 million tonnes.

We are able to offer a wide range of products, systems and services specifically developed for the construction market. These include

Colorcoat® pre-finished steel products, roof and wall cladding systems for the building envelope, hot rolled and tubular sections for the primary structure, lintels and other ancillary construction components.

## Colorcoat® Brand

We are able to offer a wide range of products and services specifically developed for the construction market, these include Colorcoat® pre-finished steel products.

Colorcoat® is the internationally recognised mark of quality and metal envelope expertise exclusively manufactured by Tata Steel at Shotton Works in North Wales. It covers a range of pre-finished steel products specifically developed for roof and wall cladding systems for the building envelope.



We have been developing and manufacturing the Colorcoat® range of technically leading products since 1965. These products are supported by a range of services, including comprehensive guarantees and technical advice.

## Pre-finished steel building envelopes

Easy to construct, strong, low cost and low maintenance, pre-finished steel is an ideal material for agricultural building envelopes. Manufactured off-site, into long length cladding systems that can span from ridge to eaves in one sheet, it is quick and easy to install, and is flexible in design to allow for extensions.

## Why Colorcoat® pre-finished steel?

The Colorcoat® range provides high quality, cost effective pre-finished steel for long lasting agricultural buildings. Born and bred in the UK, cladding systems manufactured from Colorcoat® products are produced on state of the art manufacturing lines to the highest quality standards.

As part of our commitment to the agriculture industry, we are a member of the Rural and Industrial Design and Building Association (RIDBA). Our drive to improve the built environment comes with full endorsement from RIDBA.

All Colorcoat® products are backed by nearly 50 years of innovation, extensive product testing and manufacturing excellence.



## Which Colorcoat® products are suitable for agricultural buildings?

Colorcoat® products offer agricultural building manufacturers a range of cost-effective choices that meet modern day demands as well as future requirements. They range from those suitable for general storage to those for more demanding environments such as poultry housing. For advice on which Colorcoat® product to use, see our product selector on page 6.

Colorcoat® pre-finished steel products are light and easy to fix, resistant to damage and are available in a variety of protective solutions to ensure a long building life.

At the end of the buildings life, profiles can be refurbished, reused or fully recycled in line with environmental legislation.

### **BES 6001 approved**

Colorcoat® products are certified to BES 6001 Responsible Sourcing standard, the first steel envelope products in the world to achieve this, reinforcing our commitment to sustainability.

## Benefits of Colorcoat® pre-finished steel cladding:

To ensure the best performance of Colorcoat® products, we recommend that buildings are constructed to the methods outlined in the RIDBA Farm Buildings Handbook 2009. This covers all aspects of farm construction, from planning through to fit-out of all types of buildings, under sections such as legislation and regulations, construction technology, buildings for livestock production, storage and other purposes, and buildings for diversification. The benefits of Colorcoat® pre-finished steel include:

- Low cost.
- Easy to fix, fast construction.
- Available in long lengths - from ridge to eaves in one sheet.
- Light but strong.
- Resistant to damage.
- Low maintenance and easy to repair.
- Adaptable.
- Fully recyclable.
- Protective solutions to give long life.
- Guaranteed quality, performance and service.
- Unrivalled colour choice.
- Solutions designed to suit different environments.
- Easy to integrate renewable energy solutions.
- Can be perforated for improved ventilation.
- Available with Absorb® condensation regulation fabric.
- Colorcoat HPS200 Ultra® and Colorfarm® certified to EN 10169:2010 CPI5 resistance to humidity.



# What do I need to consider when choosing which Colorcoat® product to use?

When choosing which product to use you should consider where the building is, for example will it be prone to damage, how long will you want your building to last, and what the building's use will be. Each Colorcoat® product is made up of a number of layers which perform different functions as detailed below.

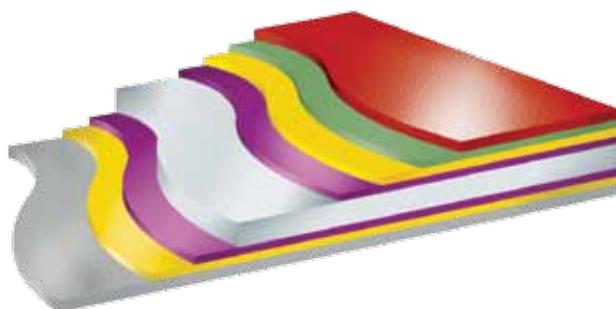
## Topcoat:

The topcoat provides the abrasion and UV resistance, and also the final appearance. In terms of abrasion resistance, the thicker the top coat the better, therefore of the pre-finished steel products in table 1 Colorcoat HPS200 Ultra® and Colorcoat® LG are the most robust. The UV resistance is dependant on the coating type. The paint system for Colorcoat HPS200 Ultra® has been designed to be the most resistant to UV light and will retain its colour and gloss for longer. The topcoat also provides the surface finish. Embosses such as the Scintilla® and leathergrain embosses are best for areas prone to damage as they tend to be better at 'hiding' scratches as opposed to smooth finishes.

## Backing coat:

We use a high performance backing coat as standard for all of our Colorcoat® products which also provides some corrosion resistance. A double sided product should be used if extra protection is required internally, this is where the same paint system is applied to the top and reverse of the steel coil.

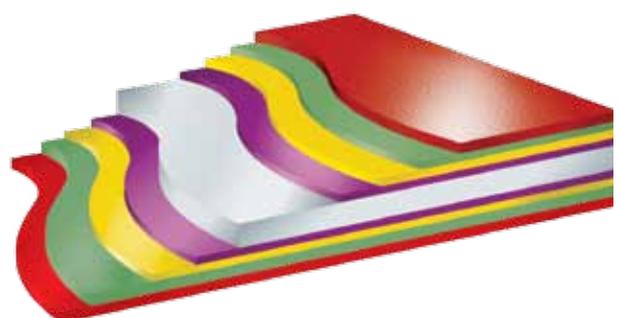
Figure 1. Diagram of typical layers for a single sided Colorcoat® pre-finished steel



### Key

<span style="color: red;">■</span> Topcoat	<span style="color: green;">■</span> Primer	<span style="color: yellow;">■</span> Pre-treatment
<span style="color: purple;">■</span> Metallic coating	<span style="color: grey;">■</span> Substrate	<span style="color: grey;">■</span> Backing coat

Figure 2: Diagram of typical layers for a double sided Colorcoat® pre-finished steel



### Key

<span style="color: red;">■</span> Topcoat	<span style="color: green;">■</span> Primer	<span style="color: yellow;">■</span> Pre-treatment
<span style="color: purple;">■</span> Metallic coating	<span style="color: grey;">■</span> Substrate	<span style="color: red;">■</span> Topcoat

### Metallic coating:

The metallic coating plays an integral role in the corrosion protection of the building. We use two types of metallic coating in the UK namely hot dip galvanising (HDG) with Zinc, and our unique Galvalloy® metallic coating which is a special mix of 95% Zinc and 5% Aluminium. Both provide sacrificial protection but the HDG can leave cut edges vulnerable to increased rates of corrosion in aggressive environments. The thicker the HDG, i.e. the higher coating weight, the more protection this offers. Galvalloy® offers a combination of increased barrier and sacrificial protection, which both inhibits and slows the rate of corrosion in comparison with HDG which only has sacrificial protection.

### Corrosion resistance:

The rating of corrosion resistance is a function of the whole coating system, and is a measure of the durability of the pre-finished steel, the more stars listed in table 1 the better the resistance, and the longer the product will last before requiring maintenance.

### Guarantee:

The guarantee covers the Colorcoat® product against unexpected coating failure. What is covered in the guarantee is dependant on the product used. The most comprehensive guarantee is the Confidex® Guarantee which covers the external surface of Colorcoat HPS200 Ultra®. Its benefits include the longest length of cover on the market, including cut edges, no requirement for inspection or maintenance to retain its validity, and covers all rectification costs should a failure occur. The guarantee period for the Confidex® Guarantee is the period to first repaint. The functional guarantee period is the length of time the product is expected to last before perforation.

Table 1. Comparison of Colorcoat® products suitable for agricultural building envelopes.

	Colorcoat HPS200 Ultra®	Colorcoat® LG	Colorfarm® 20	Colorfarm® 15	Colorcoat® PE 25	Ruralclad®
Topcoat	200µm coating with Scintilla® emboss	200µm plastisol coating with leathergrain emboss	35µm high build smooth polyester coating	35µm high build smooth polyester coating	25µm smooth polyester coating	18µm smooth polyester coating
Backing coat	High performance backing coat or 200µm coating with Scintilla® emboss	High performance backing coat or 200µm plastisol coating with leathergrain emboss	High performance backing coat or 35µm high build smooth polyester coating	High performance backing coat or 35µm high build smooth polyester coating	High performance backing coat	High performance backing coat
Metallic coating	Galvalloy®	Galvanised	Galvalloy®	Galvanised	Galvanised	Galvanised
Corrosion resistance	*****	****	****	***	**	*
Guarantee	External Confidex® Guarantee for up to 40 years including cut edges	External Period to Repaint guarantee for up to 25 years including cut edges	20 year internal functional guarantee	15 year internal functional guarantee	Walls - 5 year external Period to Repaint guarantee Roof – ☎	☎
No. of colours	40	20	8	8	On request	5

**Notes:** Health and Safety datasheet for these products are available on request from the Colorcoat Connection® helpline.

☎ For more information on Colorcoat® products please contact the Colorcoat Connection® helpline on +44 (0) 1244 892434. This dedicated helpline offers immediate advice and guidance on a wide range of construction issues such as technical advice, meeting Building Regulations and where to source complementary products.

# Choice of Colorcoat® product by building use

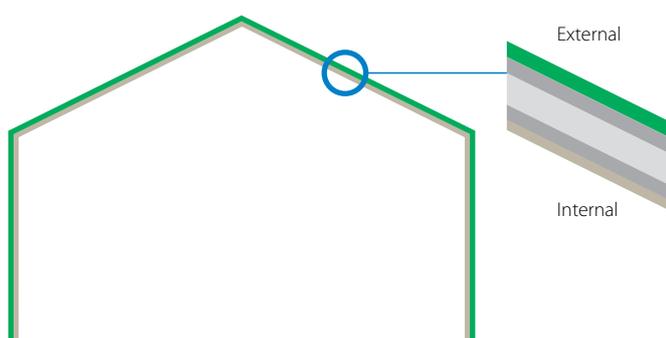
Table 2. Colorcoat® product selector.

Building type	Uninsulated single skin	Insulated composite panels/built-up system
High levels of ammonia, high humidity e.g. livestock and poultry housing	Double sided Colorfarm®	<b>External:</b> Colorcoat HPS200 Ultra® <b>Internal:</b> Colorfarm® 15 or Colorfarm® 20
Low levels of ammonia, temperature controlled, high humidity e.g. Vegetable stores	Double sided Colorcoat HPS200 Ultra® Double sided Colorfarm®	<b>External:</b> Colorcoat HPS200 Ultra® Colorcoat® LG <b>Internal:</b> Colorfarm® 15 or Colorfarm® 20
Low levels of ammonia, controlled low humidity, cool environments e.g. grain storage	Double sided Colorcoat HPS200 Ultra® Double sided Colorfarm®	<b>External:</b> Colorcoat HPS200 Ultra® Colorcoat® LG <b>Internal:</b> Colorfarm® 15 or Colorfarm® 20
Low levels of ammonia, low humidity e.g. machinery stores, general storage	Colorcoat HPS200 Ultra® Colorcoat® LG Colorcoat® PE 25 Ruralclad® Available with standard backer for internal application, selection depends on guarantee requirement.	<b>External:</b> Colorcoat HPS200 Ultra® Colorcoat® LG Colorcoat® PE 25 Ruralclad® <b>Internal:</b> Colorcoat® PE 15

## Notes

1. Colorfarm® is the only Colorcoat® product available that provides a standard guarantee for the interior of the building.
2. External product selection depends on guarantee duration requirement.
3. Single sided products are not recommended for canopies.

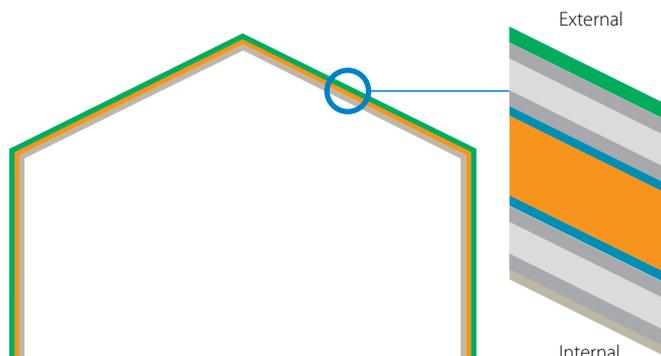
### Single skin system e.g. Grain and vegetable stores



#### Key

Pre-finished steel	Metallic coating
Colorcoat product®	Colorfarm® product

### Insulated system e.g. Poultry housing



#### Key

Pre-finished steel	Metallic coating	Colorcoat® product
Colorfarm® product	Std backing coat	Insulation



**Table 3. Typical properties of Colorcoat® products for the agricultural sector**

Test	Test standard	Colorcoat HPS200 Ultra®				Colorcoat®	
		Colorcoat® LG	Colorfarm® 20	Colorfarm® 15	PE 25	Ruralclad®	
Total dry film thickness	EN 13523-1	200µm	200µm	35µm	35µm	25µm	18µm
Gloss (60°)	EN 13523-2	10 – 40%	15 - 35%	30 - 40%	30 - 40%	30 - 50%	40 - 50%
Scratch resistance	EN 13523-12	> 3500g	> 3500g	> 3000g	> 3000g	> 2500g	> 2000g
Abrasion resistance (Taber, 250 rev, 1 kg)	EN 13523-16	< 12mg	< 12mg	< 15mg	< 15mg	< 30mg	< 20mg
Flexibility: Reverse impact	EN 13523-5	18J	18J	16J	16J	9J	9J
Adhesion (cross hatch)	EN 13523-6	100% Pass	100% Pass	100% Pass	100% Pass	100% Pass	100% Pass
Min. bend radius	EN 13523-7	0T at 16°C	0T at 16°C	4T @ 16°C	4T @ 16°C	3T @ 16°C	6T @ 16°C
Corrosion resistance: Salt spray	EN 13523-8	1000 hours	1000 hours	1000 hours	1000 hours	360 hours	400 hours
Humidity	EN 13523-25	1000 hours	1000 hours	1000 hours	1000 hours	1000 hours	500 hours
Max. continuous operating temp.	Tata Steel	60°C	60°C	100°C	100°C	100°C	100°C
Internal classification resistance to humidity.	EN 10169:2010	CPI5	-	CPI5	CPI5	-	-

**General notes**

1. The figures contained in this table are typical properties and do not constitute a specification. These figures relate to the topcoat and solid colours. For details on test methods see [www.colorcoat-online.com](http://www.colorcoat-online.com)
2. The printed colours shown on the following pages are for guidance only. For true representation of colour and effect, please obtain product samples from the Colorcoat Connection® helpline.

# Colorcoat HPS200 Ultra®

For farm buildings that are built to stand the test of time Colorcoat HPS200 Ultra® is the ideal choice. It is based upon a revolutionary coating system, providing dramatically improved colour stability and gloss retention in comparison to standard plastisols. This step change in performance allows us to provide our market-leading Confidex® Guarantee for up to 40 years.

The standard colour range for Colorcoat HPS200 Ultra® is made up of 40 colours including matt finishes. These include natural colours and tonal shades that can help your farm buildings blend with their environment.



We recommend the use of double sided Colorcoat HPS200 Ultra® for single skin farm buildings to provide increased abrasion resistance and for humid environments. Colorcoat HPS200 Ultra® is used in all construction sectors due to its excellent corrosion protection in acidic, alkaline and salty environments, combined with its high robustness and excellent UV resistance. However when ammonia concentrates are high e.g. inside stables by the presents of livestock and manure, we would recommend Colorfarm® for internal application.

For availability of colour combinations please contact the Colorcoat Connection® helpline on +44 (0) 1244 892434.

## Key attributes

- 200µm durable, abrasion-resistant topcoat.
- Twice the colour and gloss retention of standard plastisols Colorcoat HPS200 Ultra® meets the requirements of Ruv4 and RC5 as per EN 10169:2010 proving

outstanding colour retention and corrosion resistance for the whole colour range.

- Unique Scintilla® emboss so you can rest assured that your pre-finished steel has full traceability and is protected with the highest quality from Tata Steel.
- Optimised Galvalloy® metallic coating to EN 10346:2009 for unrivalled corrosion resistance and cut edge protection.
- Confidex® Guarantee for up to 40 years with no maintenance or inspections required to maintain its validity.
- Available with Confidex Sustain® to offer CarbonNeutral building envelopes.
- Standard sizes are available on short production lead times.
- BBA certified for durability in excess of 40 years.
- Certified to EN 10169:2010 CPI5 resistance to humidity.

## Colour range



Order the Colorcoat HPS200 Ultra® colour card from the Colorcoat Connection® helpline to see the complete colour range and emboss effect.

# Colorcoat® LG

Colorcoat® LG is a leathergrain embossed plastisol product suitable for general storage and light industrial buildings, where good corrosion resistance and a guaranteed life for up to 25 years is required. It consists of a 200µm durable, abrasion-resistant topcoat and a high performance backing coat applied to a galvanised substrate to EN 10346:2009.

Colorcoat® LG is available double sided for single skin buildings that need protection internally from abrasion.

## Key attributes

- 200µm durable, abrasion-resistant topcoat.
- Standard leathergrain emboss.
- Available in 20 popular colours in standard sizes.
- Supplied with a galvanised substrate to EN 10346:2009 offering good corrosion resistance.
- Available with a performance guarantee up to 25 years including cut edges.
- High performance reverse side backing coat as standard.
- BBA certified for durability in excess of 25 years.

## Colour range



Order the Colorcoat® LG colour card from the Colorcoat Connection® helpline to see the complete colour range and emboss effect.

# Colorfarm®

Colorfarm® has been designed specifically to meet the demands of agricultural buildings including a high resistance to ammonia and fertilizers, and is guaranteed to give 15 or 20 years functional performance - Colorfarm® 15 or Colorfarm® 20. It suits any farming purpose, including livestock housing and crop storage and has been tested in

contact with a number of chemicals commonly found in agricultural environments. During the tests Colorfarm® was exposed to vapour, liquid, or paste, depending on the chemical being tested. The performance of Colorfarm® after 500 hours exposure to the test reagent is shown in the following table.

Recent testing has been undertaken which confirms Colorfarm® achieves CPI5, the best internal classification according to EN 10169:2010. Long term corrosion testing for Colorfarm® 15 exceeds standards and shows excellent barrier properties of Colorfarm® compared to PVDF and typical polyester.

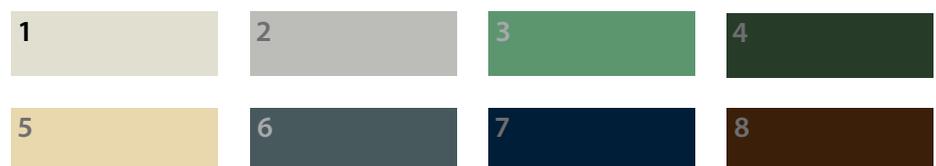
**Table 4. Exposure of Colorfarm® to common chemicals**

Test reagent	Excellent resistance	Performance Good resistance	Limited resistance
Fertiliser 10% Phosphate	*		
Fertiliser Amn. Phosphate	*		
Fertiliser NPK 25:5:5	*		
Fertiliser NPK 5:24:15	*		
Antiseptic drench	*		
Wood preservative	*		
Weed killer	*		
Hydrochloric Acid (10%)			*
Sulphuric Acid (10%)			*
Phosphoric acid (10%)			*
Acetic acid (10%)			*
Butyric Acid (10%)			*
Lactic acid (10%)		*	
Sodium Hydroxide pellets			*
Ammonia (High concentration 75%)		*	
Sodium Hypochlorite		*	
Ammonium Nitrate			*
Ammonium Phosphate	*		
Sodium Carbonate	*		
Sodium Chlorate	*		
Sodium Nitrate	*		
Formalin (40%)	*		
Urea	*		
Water	*		
Carbon Dioxide	*		

Both Colorfarm® 15 and Colorfarm® 20 are available in a choice of 8 colours, all chosen to blend in with the external landscape and simulate those of traditional building materials or create a bright interior, when using double sided Colorfarm®.

BS or Ral reference numbers shown represent the nearest colours and are not exact matches. To gain a true colour representation, a Colorfarm® hand sample must be used.

## Colour range



- 1. Chalk White RAL: 9002 | 2. Goosewing Grey RAL: 10A05 | 3. Reseda Green RAL: RAL 6011 | 4. Juniper Green RAL: 12B29
- 5. Light Ivory RAL: 1015 | 6. Slate Grey RAL: 220 30 05 | 7. Slate Blue RAL: 5008 | 8. Millstone Brown RAL: 08B29

## Colorfarm® 20

Colorfarm® 20 consists of the by Tata Steel which unique Galvalloy® metallic coating provides excellent corrosion resistance, and a high build paint system that has been designed to give protection against high humidity conditions that are found in livestock housing and in vegetable and grain stores. It is guaranteed to give 20 years functional performance, providing buildings are well designed and ventilated, and is available single or double sided.

Double sided Colorfarm® 20 should be used for single skin high humidity buildings. Single sided can be used for the external and internal faces of insulated buildings, using built-up or composite panel systems.

The backing coat should be installed facing the insulation. Here the exposed side of the external and internal cladding is protected by the high build Colorfarm® 20 pre-finished steel, whilst the unexposed side is supplied with our high performance backing coat. Colorfarm® 20 provides good levels of

resistance against many chemicals found in agricultural environments, and with appropriate maintenance its overall life will be considerably extended.

It is also grant approved in the Republic of Ireland and deemed to satisfy the Irish Department of Agriculture and Food performance specifications for roof and sidewall cladding materials.

### Key attributes

- 35µm coating, double or single sided, for good chemical resistance.
- Supplied with a Galvalloy® metallic coating to EN 10346:2009 for excellent corrosion resistance.
- Available in 8 colours, specifically developed to harmonise with the rural environment.
- 20 year functional performance guarantee.
- Certified to EN 10169:2010 CPI5 resistance to humidity.

## Colorfarm® 15

Colorfarm® 15 provides good corrosion resistance on both the exterior and interior of the building, and has been developed as an effective cladding material for farm buildings with humid internal conditions. With a standard galvanised substrate it is guaranteed to give 15 years functional performance, providing buildings are well designed and ventilated. It is available single or double sided.



Double sided Colorfarm® 15 should be used for single skin buildings with humid internal conditions. Single sided can be used for the external and internal sheets of insulated buildings, using built-up or composite panel systems.

The backing coat should be installed facing the insulation. Here the exposed side of the external and internal cladding is protected by the high build Colorfarm® 15 coating system, whilst the unexposed side is supplied with our high performance backing coat.

Colorfarm® 15 provides good levels of resistance against many chemicals found in agricultural environments, and with appropriate maintenance its overall life will be considerably extended.

It is also grant approved in the Republic of Ireland and deemed to satisfy the Irish Department of Agriculture and Food performance specifications for roof and sidewall cladding materials.

### Key attributes

- 35µm coating, double or single sided, for good chemical resistance.
- Supplied with a galvanised substrate produced to EN 10346:2009.
- Available in 8 colours, specifically developed to harmonise with the rural environment.
- 15 year functional performance guarantee.
- Certified to EN 10169:2010 CPI5 resistance to humidity.



# Colorcoat® PE 25



Colorcoat® PE 25 is an economic product suitable for undemanding roof and wall applications particularly in dry and non-aggressive climates where there are no high demands for corrosion protection.

### Key attributes

- Smooth 25µm polyester coating.
- Supplied with a galvanised substrate produced to EN 10346:2009.
- Available in the most popular cladding colours.
- High performance reverse side backing coat specially formulated for use in construction applications.

# Ruralclad®

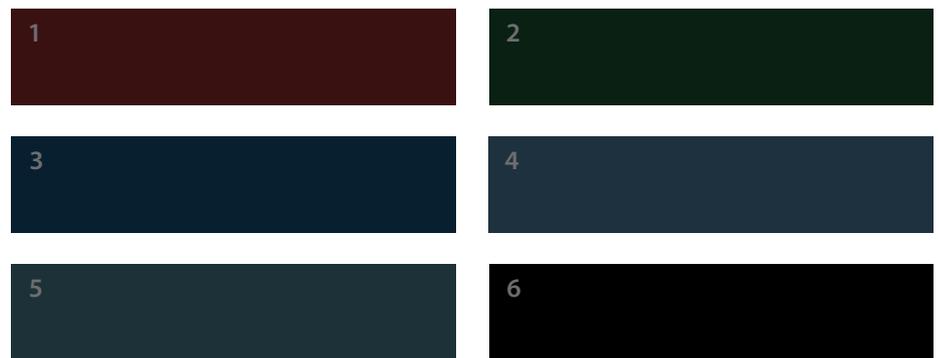


Ruralclad® is a value pre-finished steel product, designed for agricultural buildings that would only be used for dry storage e.g. implement sheds. Produced to the high quality standards expected from Tata Steel, it consists of a galvanised substrate with a nominal 18µm flexible paint system on the exterior side of the sheet and a standard high performance reverse side backing coat.

### Key attributes

- Smooth 18µm polyester coating.
- Supplied with a galvanised substrate produced to EN 10346:2009 .
- Available in 5 popular agricultural building colours.
- High performance reverse side backing coat specially formulated for use in construction applications.

### Colour range



BS or Ral reference numbers shown represent the nearest colours and are not exact matches. To gain a true colour representation, a Colorfarm® hand sample must be used.

1. Dark Brown RAL: 08B29 | 2. Dark Green RAL: 12B29 | 3. Slate Blue RAL: 18B27  
4. Slate Grey RAL: 220 30 05 | 5. Dark Grey RAL: 7016 | 6. Black RAL: 9005



# Technical advice on meeting building requirements

## 1. Designing to eliminate condensation

Condensation can be a problem in single skin buildings, it occurs when moist air within the building comes into contact with a surface, at a temperature below the dew point. When this happens, the air is unable to retain the moisture and the water is released to form condensation on the surface.

Over time, condensation left unchecked could lead to damage to both the fabric of the building and its contents. To combat this problem, there are two methods that are commonly used, the first being to use insulated cladding systems, the second to use a condensation regulation fabric such as Absorb®.

### How Absorb® works

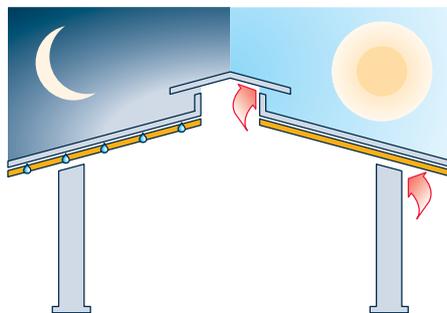
At night, the air outside the building cools and normal condensation can occur if the temperature falls below the dew point. Absorb®, which is a non-woven fabric applied to the underside of the roof panel, readily absorbs any condensation produced, and can be applied to the back of all Colorcoat® pre-finished steel products.

The action of Absorb® is not to stop condensation, but instead trap the water and prevent droplets of water falling inside the building. During the next day, the absorbed water evaporates naturally, due to a combination of the rising roof temperature and an efficient ventilation design.

### With Absorb®

Condensation is absorbed

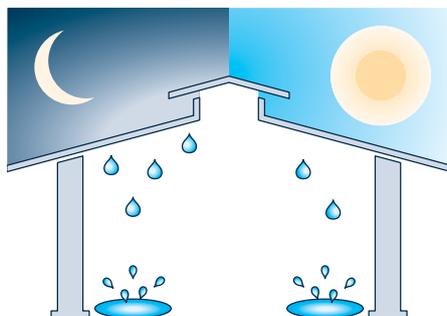
Water eliminated through evaporation



### Without Absorb®

Water droplets form and fall

Water droplets continue to fall



### Processing

Once Absorb® is applied to the pre-finished steel, it can be processed as usual: by shearing, cropping, bending, profiling and forming. However, we recommend reducing the roller pressure during profiling, to avoid marking on the topcoat.

### Natural protection

Absorb® is naturally protected against the development of fungi because it is made of 100% of synthetic fibres.

### Ventilation requirements

To guarantee ongoing performance, Absorb® needs to dry out during the daytime, which is why adequate ventilation of closed buildings is essential. Suitable ventilation types are:

- Ridge tile
- Perforated sheet
- Free/open
- Wood/steel slat

### Availability of other condensation regulation fabrics

Colorcoat® products are available with other condensation regulation fabrics through our Colorcoat® Accredited Distributors. For more information on our Colorcoat® Accredited distributors and contact details, please visit [www.colorcoat-online.com/distributors](http://www.colorcoat-online.com/distributors)

## 2. Designing for fire performance

### Reaction to fire

All Colorcoat® products have a Class 1 surface spread of flame when tested in accordance with BS 476 part 7, and meet the Class 0 requirements of the Building Regulations for England and Wales 2006.

### Resistance to fire

All Colorcoat® products when used as part of a roof cladding system, will achieve a Class AA

performance rating when tested in accordance with BS 476 part 3.

Colorcoat® roof covering products covered by EN 14782:2005 are deemed to satisfy, without the need for further testing, the requirements for external fire performance in accordance with Commission Decision 2000/553/EC.

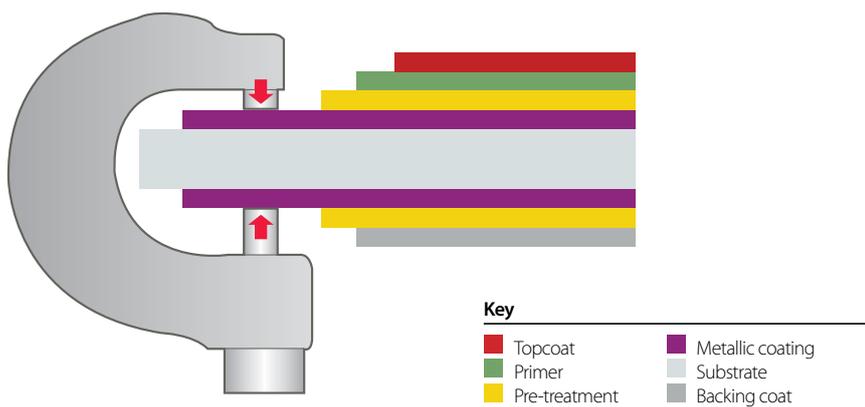
## 3. Designing to meet gauge specifications

The gauge of the pre-finished steel coil or sheet plays a vital role in the physical properties and performance of the wall or roof cladding that is manufactured from it. Incorrect specification may, in the worst cases, have safety implications such as roof fragility. The European standard EN 10143:2006 defines the tolerances for different grade, width and gauge material for normal and special tolerance categories.

Tata Steel are able to supply pre-finished steel to normal and special tolerances according to EN 10143:2006 and tighter tolerances, subject

to commercial agreement, to ensure that the cladding performs as designed. Incorrectly specifying gauge or gauge tolerances can affect:

1. Structural performance, including in-use loads and purlin spacings as well as safety implications during construction and maintenance.
2. A buildings visual appearance, lighter gauge material is more prone to damage during installation, and distortion of the profile around fasteners due to slight misalignment of the primary/secondary structure.



## Colorcoat® services

The Colorcoat® brand is recognised as the exclusive mark of quality and metal envelope expertise and is supported by a comprehensive range of services, technical advice and guidance.

### Colorcoat® Business Development Team

The team are readily available to advise you on the design, specification and construction of your metal building envelope. Call the Colorcoat Connection® helpline or visit [www.colorcoat-online.com](http://www.colorcoat-online.com) to find out who the representative is for your area.

### Colorcoat Connection® helpline

This dedicated helpline offers immediate and easily accessible advice and guidance on a wide range of construction issues such as:

- Technical advice.
- Meeting Building Regulations.
- Where to source complementary products.

Contact us on **+44 (0)1244 892434**.

### Colorcoat® Technical Papers

We have produced a number of technical papers that can help you address key issues in building design and construction. Visit [www.colorcoat-online.com/technical](http://www.colorcoat-online.com/technical) to view the full range.

### Colorcoat® Accredited Distributors

Our Colorcoat® Accredited Distributors have been evaluated and approved for supply of Colorcoat® products. The storage, handling, processing and range of Colorcoat® pre-finished steel products have been assessed and found to meet the highest standard of quality and service. They can provide you with any product from the Colorcoat® range in small quantities, with a 48 hour service guaranteed. For further details visit [www.colorcoat-online.com/distributors](http://www.colorcoat-online.com/distributors).



# www.colorcoat-online.com

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