

**TATA STEEL**



**Colorcoat Prisma® for rainscreens**  
Aesthetics that last



# 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

**Colorcoat® is the internationally recognised mark of quality and metal envelope expertise exclusively manufactured by Tata Steel. It covers a range of pre-finished steel products specifically developed 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 guidance.

The range includes Colorcoat Prisma® which provides the definitive combination of durability and aesthetic appeal.

# PERFORMANCE

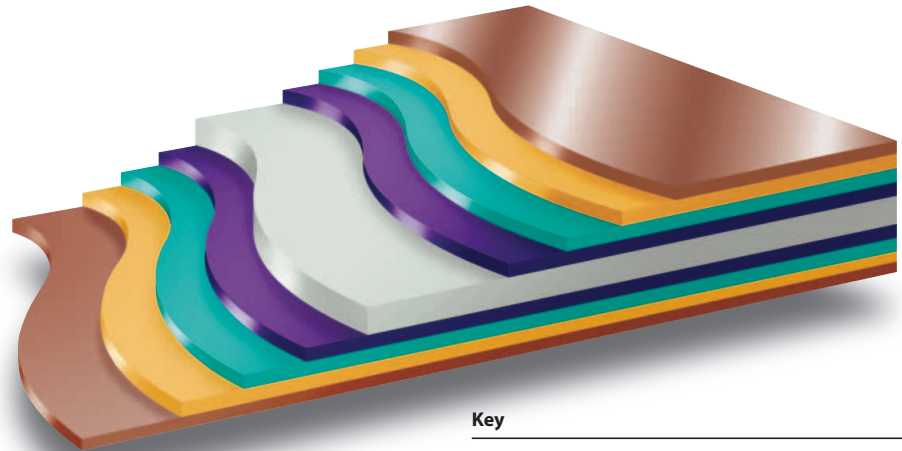
## Robust paint technology

Colorcoat Prisma® for rainscreen applications is designed to withstand the rigours of the external environment. It consists of a high build robust paint system that provides a greater level of durability when compared with typical PVDF and polyester paint systems. Colorcoat Prisma® for rainscreen applications is made up of a number of layers applied using the latest technology to a 1.2mm thick steel substrate sourced from our plant in South Wales. The 1.2mm gauge, manufactured to EN 10346:2009, ensures an excellent level of flatness and stiffness for the rainscreen panel.

Our unique Galvalloy® metallic coating is applied to this substrate followed by a high build primer, both which provide superior corrosion resistance. Finally the topcoat is applied which incorporates polyamide beads and utilises the latest polymer technology to provide abrasion and UV resistance. The topcoat has a total nominal thickness of 50 microns.

The same topcoat and corrosion resistant primer is applied to the reverse side of the steel substrate at a nominal thickness of 35 microns. This provides the ideal solution for rainscreen applications where, in addition to the external face and cut edges, increased protection is required at the reverse side to deal with the microclimate between the rainscreen and the building wall. The reverse colour for this specific application is Hamlet RAL 9002.

## Typical coating layers of Colorcoat Prisma® for rainscreen applications



### Key

Final coat with polyamide beads	Corrosion resistant primer	Pre-treatment
Galvalloy®	Base substrate	

## Galvalloy®

Most pre-finished steel products use a Zinc metallic coating that provides corrosion resistance but leaves cut edges vulnerable to peeling or premature paint delamination. Colorcoat Prisma® uses the Tata Steel unique and proven Galvalloy® metallic substrate, a special mix of 95 per cent Zinc and 5 per cent Aluminium, providing unrivalled corrosion protection, even at the cut edges.

## Guarantee

A bespoke, application specific guarantee is available through your rainscreen manufacturer on application. This provides cover for your Colorcoat Prisma® rainscreen for up to 25 years with the full backing of Tata Steel.

For more information contact the Colorcoat Connection® helpline on +44 (0) 1244 892434.

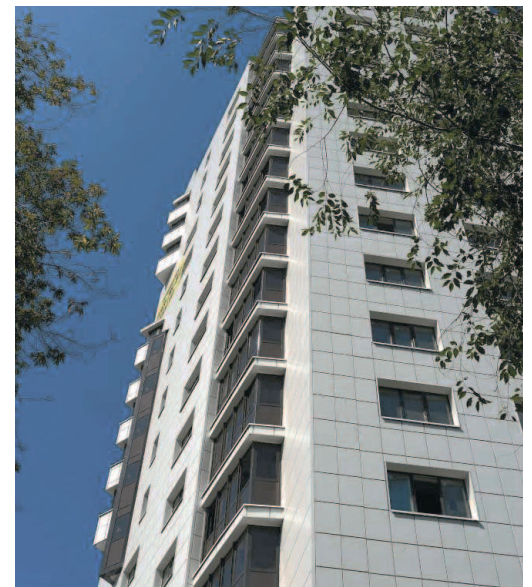


Photo courtesy of Metall Profil®

# BENEFITS

Colorcoat Prisma® provides the sophisticated look of a traditional rainscreen but without the expense.

## Benefits include:

- Backing of a tried and trusted brand, created and developed by Tata Steel.
- Excellent levels of flatness for façade panels.
- Five popular colours as standard.
- Excellent robustness and impact resistance making it ideal for high traffic areas.
- Bespoke guarantee providing cover for up to 25 years.
- All solid and metallic colours surpass requirements of Ruv4 and RC5 as per EN 10169:2010 proving outstanding colour retention and corrosion resistance.
- Optimised Galvalloy® metallic coating for superior corrosion resistance and cut edge protection.
- When tested in accordance with BS476 Part 7 has Class 1 surface spread of flame and meets requirements for Class 0 of the Building Regulations for England and Wales.

# PROPERTIES

## Durability

To ensure performance in-use our products undergo extensive testing to determine their durability. Both natural weathering of rainscreen panels fabricated from 1.2mm Colorcoat Prisma®, and accelerated tests at accredited sites in Europe have been carried out.

The results show that 1.2mm Colorcoat Prisma® meets the requirements of RC5 according to EN 10169:2010, this is the highest corrosion rating possible. SVRET (Scanning Vibrating Reference Electrode Technique) testing was also undertaken to look at the cut edge performance. All natural weathering, accelerated testing and in-depth analysis of the performance of the cut edge confirm the superior performance of the Galvalloy® metallic coating coupled with the high corrosion resistant primer in protecting the exposed edge.



Detailed view of the cut edge after >1 year exposure at Brest showing no corrosion.

## Typical properties

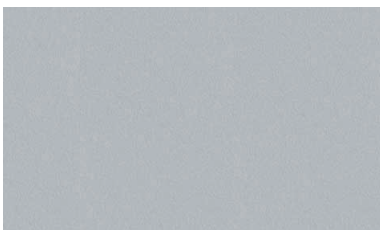
Colorcoat Prisma®			Test standard
Nominal organic coating thickness	(µm)*	50	EN 13523-1
Specular gloss (60°): Non-matt colours	(%)	30–40	EN 13523-2
Matt colours	(%)	3–5	EN 13523-2
Scratch resistance: Non-matt colours	(g)	> 3500	EN 13523-12
Matt colours	(g)	> 3000	EN 13523-12
Abrasion resistance: (Taber, 250 rev, 1kg) Non-matt colours	(mg)	< 20	EN 13523-16
Matt colours	(mg)	< 25	EN 13523-16
Flexibility: Minimum bend radius	(T)	0.5T@16°C	EN 13523-7
Reverse impact	(J)	18	EN 13523-5
Adhesion (cross hatch)	(%)	100	EN 13523-6
Pencil hardness		H	EN 13523-4
Maximum continuous operating temperature	(°C)	90	
Corrosion resistance: Salt spray	(h)	1000	EN 13523-8
Humidity	(h)	1000	EN 13523-25
Corrosion resistance category		RC5 <sup>1</sup>	EN 10169
UV resistance category		Ruv4	EN 10169

\*µm = micron

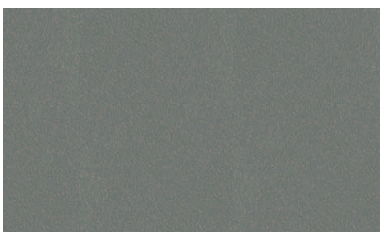
## Notes

1. RC5 certification does not include matt colours, these are currently on test.
2. The figures contained in this table are typical properties and do not constitute a specification. Tested in accordance with EN 13523.
3. For health and safety datasheets contact the Colorcoat Connection® helpline on +44 (0)1244 892434

## Solid metallics

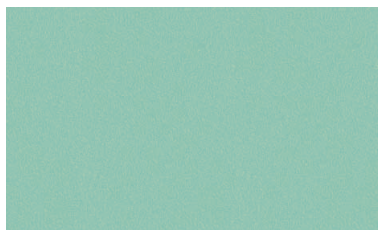


Silver Metallic (RAL 9006)

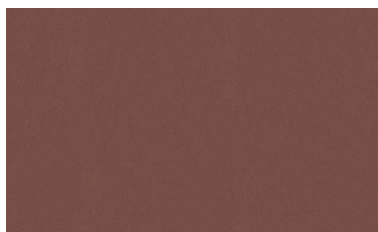


Grey Aluminium (RAL 9007)

## Matt colours

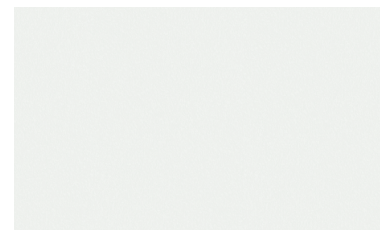


Copprium (RAL 160 70 20)



Terracotta (RAL 040 40 40)

## Solid colours



White (RAL 9010)

# INSPIRE YOUR IMAGINATION

**Designed to withstand the rigours of the external environment, versatile and strong, Colorcoat Prisma® pre-finished steel is the ideal choice for rainscreen cladding to provide contemporary, long lasting colour.**

Whether you are designing for new build or refurbishment of offices, shops, schools, hospitals, airports, or houses, or even looking to modernise their interiors, Colorcoat Prisma® for rainscreens enables you to create beautiful buildings with a finish that will look as good as the day it was installed for years to come.

### Availability

All colours shown are now available via our distributor, Colorsteels, as flat sheets in various lengths up to 4 metres as standard. The reverse colour for all rainscreen applications is Hamlet RAL 9002. A strippable film is applied to all sheets for protection and to show directionality for metallic colours. For further details on sizes and recommended rainscreen manufacturers contact Colorsteels on +44 (0) 1495 279 100.

**Note:** Other Colorcoat Prisma® colours are available, dependent upon a minimum order quantity of 2000m<sup>2</sup>.

# SUSTAINABLE STEEL

Steel is an essential material, intrinsic to our way of life and to the products society will demand in a sustainable future. Steel is a material that is used, not consumed. It is recycled and used again, without any loss of quality, time after time. At Tata Steel, we are committed to making the products society needs and to making them in the most responsible way possible.

**This means, practically, that we commit to:**

- Producing steel products for the future.
- Investing in sustainable steel-making.
- Improving our existing processes.
- Facilitating the recycling loop.

Our steel enables our customers to make safer cars, more energy-efficient buildings and infrastructure, easily-recoverable and recyclable packaging and many other products which help to move society towards our vision of a sustainable future.

## BECAUSE WHERE IT COMES FROM MATTERS

**There is no single answer to sustainable development, the sustainability of a building is instead determined by a combination of factors including initial design and construction, occupation and end of life. Whilst in a narrow definition of sustainability, environmental factors dominate, as the industry strives to build in a less impactful way the onus is increasingly being put on manufacturers to demonstrate responsible sourcing of products used in construction.**

At Tata Steel we take this responsibility very seriously and have been awarded BES 6001 Responsible Sourcing certification with a 'very good' rating for our Colorcoat® products. This reinforces our commitment to sustainability and to actively managing our impacts and contribution in terms of inputs, manufacture and finished product.

The independent endorsement reinforces our commitment to producing materials in a sustainable manner and helps our customers to achieve the highest standards of responsible sourcing against schemes like BREEAM and the Code for Sustainable Homes (CfSH).

### **Re-use and recycling**

Colorcoat Prisma® is fully recyclable without any additional burden to the environment in terms of emissions to the atmosphere. There is a well established and very efficient steel recycling infrastructure which ensures all the scrap collected at end of life goes back into steel manufacture.

# 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.

## Repertoire®

Whether you want your building to stand out, or blend with the surroundings, we can create a unique identity for your building. Through our Repertoire® Colour Consultancy service we can match almost any solid colour for walls or roofs for your building, with a minimum order quantity of 2000m<sup>2</sup>, we can work from either physical swatches or reference standards. For more information contact the Colorcoat Connection® helpline or visit

[www.colorcoat-online.com/repertoire](http://www.colorcoat-online.com/repertoire)

## Metal hand samples

Metal hand samples are available for all colours. For a truer representation of colour and effect, please obtain metal hand samples from the Colorcoat Connection® helpline or look online at [www.colorcoat-online.com/samples](http://www.colorcoat-online.com/samples)

## Colour consistency

If tonal consistency is critical, all cladding for a single elevation should come from the same production batch. All metallic shades exhibit a degree of directionality. A strippable film is applied to all Colorcoat Prisma® pre-finished steel to be used for rainscreen applications. This indicates the rolling direction so can be used to ensure that all panels are fixed in the same direction. The strippable film also provides protection to the panel during rainscreen manufacture.

## Matching components

If accessories made from other materials are to be colour-matched to the roof or wall cladding, the best reference is the actual profiles or panels delivered to site, or material from the same batch.

## Colorcoat® Business Development Team

The team are readily available to advise you on the design, specification and construction of your rainscreen cladding. 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.

Contact us on +44 (0)1244 892434.



# www.colorcoat-online.com

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## **Tata Steel**

### **Colors**

Shotton Works

Deeside

Flintshire

CH5 2NH

United Kingdom

T: +44 (0) 1244 812345

F: +44 (0) 1244 892345

[www.colorcoat-online.com](http://www.colorcoat-online.com)

### **Colorcoat Connection® helpline**

T: +44 (0) 1244 892434

F: +44 (0) 1244 892321

E: [colorcoat.connection@tatasteel.com](mailto:colorcoat.connection@tatasteel.com)

### **Colorsteels**

North Black Vein Industrial Estate

Islwyn Road

Cross Keys

NP11 7YD

T: +44 (0) 1497 279100

F: +44 (0) 1495 270361

[www.tatasteelservicecentres.com](http://www.tatasteelservicecentres.com)

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