

TATA STEEL



**Colorcoat® pre-finished steel for flashings
and fabrications**



Colorcoat[®], because where it comes from matters



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. Our European operations are a subsidiary of Tata Steel Group, one of the world's top ten steel producers. The combined group has an aggregate crude steel capacity of more than 28 million tonnes and approximately 80,000 employees across five continents.

Early fabrications were simple corners for horizontally laid profiled wall sheets. The use of curved sheeting for roofs drove the development of curved flashings. Today the industry demands a wide and varied range of products and materials that include everything from bullnoses and concealed gutter and soffit systems to bespoke details for special features. Fabricated products allow the designer to achieve their goals using both standard details and bespoke items.

Colorcoat[®] Accredited Distributors

In this fast-moving market, design, product quality and prompt delivery are key factors to both the manufacturer and the end client.

When specifying pre-finished steel products for a building envelope, it is important to consider the specification of materials for all other elements of the building - such as flashings, louvres, façades and canopies. The Colorcoat[®] Accredited Distributors can ensure that Colorcoat[®] pre-finished steel material is readily available to fabricators of these building elements and they can be easily fabricated from material exhibiting the same integrity and performance as the finished building.

Tata Steel and our Colorcoat[®] Accredited Distributors help deliver this value through the products and services that we offer and the contribution that we can make in addressing the critical issues within this sector. We have been working together for over 25 years to provide quality pre-finished steel products and services into the flashings and fabrications sector.

This robust supply chain has been assessed for storage, handling, processing, delivery and the range of Colorcoat[®] products offered, to ensure that they are supplied to the highest standards of quality and service expected by Tata Steel and our customers, giving you total peace of mind.

Meeting the requirements of flashings and fabrications

Availability

The flexibility of the Colorcoat® Accredited Distributors makes it easy for you to have access to the largest range of Colorcoat® products, in bespoke quantities on a 48 hour delivery lead time anywhere in the UK.

Our Colorcoat® Accredited Distributors can provide you with any standard colour from the Colorcoat HPS200 Ultra®, Colorcoat Prisma® and Colorcoat® LG range. Other Colorcoat® pre-finished steel products are also available in all popular colours.

For a full list of standard widths and gauges stocked by the Colorcoat® Accredited Distributors please refer to the published Standard Colorcoat® Availability literature or download from www.colorcoat-online.com/distributors

Colorcoat® products supplied via a Colorcoat® Accredited Distributor are fully manufactured and processed in the UK which is how we can guarantee the shortest possible lead times with the lowest carbon emissions from transport.

This quick and efficient supply chain is fully traceable and manufactured under strict quality conditions audited to ISO 9001:2000.



Part L and thermal efficiency

Steel is inherently air-tight. This in combination with strict assembly line production methods, and an efficient and innovative supply chain creates the basis to supply flashings and fabrications that help roof and wall systems meet, and exceed, the current requirements of Building Regulations. For example for Part L, meeting the regulations in terms of air-tightness and U-value, to form the basis of an energy efficient building with low CO₂ emissions. Along with our Colorcoat® Accredited Distributors we can provide technical services and advice as well as supply processed products that contribute towards meeting the requirements.

Fire performance

Protection from fire, and fire performance of the building envelope fabric, plays an important role in its design and construction.

Fire performance of pre-finished steel is measured against two key factors:

1. Reaction to fire

Colorcoat® pre-finished steels have a Class 1 surface spread of flame and fire propagation indices of $I < 12$, $i1 < 6$ and meet the Building Regulation requirements of Class 0.

2. Resistance to fire

Colorcoat® pre-finished steels can be used in roofing systems to achieve a Class AA, National Class, or B_{ROOF} (t4), European Class.



Pre-finished steel gauge

The gauge and correct mechanical properties of the pre-finished steel used in flashings and fabrications has a significant impact on the overall visual appearance of the installed product.

The European Standard EN 10143:2006 specifies the thickness tolerances for hot dipped metal coated low carbon steel. It is important to manufacture flashings and fabrications from pre-finished steel which has a nominal gauge of 0.7mm and meets the requirements of this standard. Manufacturing flashings and fabrications from pre-finished steel gauges with a nominal gauge less than 0.7mm could result in the measured pre-finished steel gauge actually being less than that required to ensure a quality finished product. The use of this material will impact on the visual appearance of the flashings and fabrications, as under gauge pre-finished steel is prone to both distortion from waving and deformation around the fixings.

All Colorcoat® pre-finished steel products are manufactured to nominal ordered gauge and subject to the requirements of EN 10143:2006. Gauge and gauge tolerance are critical to ensure that a pre-finished steel product meets the performance criteria required from the flashings and fabrications.

The use of Colorcoat® products ensures full through process control from steel manufacture to pre-finished steel coil or sheet, providing consistent material properties and performance.

Sustainable development

Sustainable development is about meeting the needs of the present without compromising the ability of future generations to meet their own needs. The building envelope and its associated flashings and fabrications have become an important part of the design and use of a sustainable development. The flexibility in design, efficient use of materials and overall adaptability can contribute to the reduction of the embodied energy of the building fabric as well as the operational energy it will require. With our Colorcoat® Accredited Distributors we are actively engaged in the issue of sustainable development from the supply of the most sustainable pre-finished steel products to life cycle analysis and end of life options.

Waste management

An important factor in the design of sustainable development is the disposal of manufacture, construction and on-site waste. Keeping waste generation from the manufacturing and construction process to a minimum is key. It is important that unavoidable waste is correctly disposed of, reused or recycled.

ISO 14001

The environmental management system ISO 14001 is the internationally recognised standard. This independent certification covers both waste management and process efficiency, thus providing a solid base for a company to develop an environmental reporting system.

Tata Steel and our Colorcoat® Accredited Distributors have environmental management systems that have been assessed to ISO 14001 and as a result Colorcoat® pre-finished steel manufacture, process and supply is considered to be responsibly sourced.

BES 6001

Colorcoat® pre-finished steel envelope products are certified to BES 6001 Responsible Sourcing standard, the first steel products in the world to achieve this. The standard provides external verification of our continued commitment through Colorcoat® to sustainability.

Recyclability

There is a firm infrastructure in place for the recycling of steel and it is easy to segregate from other construction materials. Steel is one of the most recycled construction materials with 40% of global steel production derived from scrap and 100% recyclability without any loss of quality or performance.

Every 1 tonne of steel recycled saves:

- 1.9 tonnes of iron ore
- 0.6 tonnes of coal
- 1.8 tonnes of CO₂

Colorcoat® pre-finished steel is fully recyclable and at end of life can be added to the steel making vessel with no additional impact on the steel making process from the paint coatings.

For further information on sustainability contact the Colorcoat Connection® helpline on +44 (0) 1244 892434 or email colorcoat.connection@tatasteel.com



Colorcoat® for flashings and fabrications

The Colorcoat® brand provides the recognised mark of quality and metal envelope expertise exclusively from Tata Steel.

For nearly 50 years Tata Steel has developed a range of technically leading Colorcoat® pre-finished steel products which have been comprehensively tested and are manufactured to the highest quality standards.

These are supported by a range of services such as comprehensive guarantees, colour consultancy and technical support and guidance.



Colorcoat HPS200 Ultra®

The latest generation pre-finished steel for roof and wall cladding systems and the flashing and fabrications, used to complement the building envelope design. Colorcoat HPS200 Ultra® offers an exciting colour range and delivers twice the colour and gloss retention compared to a standard plastisol.

- 200µm unique, eco-designed, durable and abrasion-resistant coating system.
- Unique emboss provides assurance of Tata Steel supply.
- It also provides a thicker protective coating, and less dirt entrapment than a standard leathergrain plastisol.
- Available in 40 colours including 2 matt.
- Unique Steel Galvalloy® metallic substrate providing unrivalled corrosion protection.
- High performance reverse side backing coat as standard.
- BBA Certification of durability in excess of 40 years.

Colorcoat Prisma®

Designed to withstand the rigours of the external environment, versatile, light weight, and strong, Colorcoat Prisma® pre-finished steel is the ideal choice for your building envelope for contemporary, long lasting colour.

- 50µm robust and durable coating system.
- Available in 27 colours including 12 metallic and 3 matt.
- Unique Galvalloy® metallic substrate providing unrivalled corrosion protection.
- High performance reverse side backing coat as standard.
- BBA Certification of durability in excess of 40 years.

Colorcoat® LG

Colorcoat® LG is a leathergrain plastisol product suitable for the manufacture of flashings and fabrications where good performance is required at a competitive price.

- 200µm durable, abrasion-resistant coating system.
- Leathergrain emboss.
- Available in the most popular colours in standard sizes.
- Galvanised substrate to BS EN 10346:2009 offering good corrosion resistance.
- High performance reverse side backing coat as standard.
- BBA Certification of durability in excess of 25 years.

Colorcoat® pre-finished steel colour cards¹ and colour samples are available from the Colorcoat Connection® helpline on +44 (0) 1244 892434 or email colorcoat.connection@tatasteel.com and available to download from www.colorcoat-online.com/products

Notes

1. Please note guarantee periods contained in Colorcoat® pre-finished steel colour cards are specific to the building envelope. For flashings refer to the specific guarantee periods stated in this document.



Table 1. Typical properties

		Colorcoat HPS200 Ultra®	Colorcoat Prisma®	Colorcoat® LG	Test standard
Nominal organic coating thickness	(µm)*	200	50	200	EN 13523-1
Specular gloss (60°)					
Standard colours	(%)	20-40	30-40	15-35	EN 13523-2
Matt colours	(%)	10	3-5		
Scratch resistance					
Standard colours	(g)	> 3500	> 3500	> 3500	EN 13523-12
Matt colours	(g)	> 3500	> 3000		
Abrasion resistance (Taber, 250 rev, 1kg)					
Standard colours	(mg)	< 12	< 20	< 12	
Matt colours	(mg)	< 12	< 25		EN 13523-16
Flexibility:					
Minimum bend radius	(T)	0T @ 16°C 1T @ 0°C	0.5T @ 16°C	0T @ 16°C	EN 13523-7
Reverse impact	(J)	18	18	18	EN 13523-5
Adhesion (cross hatch)	(%)	100	100	100	EN 13523-6
Corrosion resistance:					
Salt spray	(h)	1000	1000	1000	EN 13523-8
Humidity	(h)	1000	1000	1000	EN 13523-25
Corrosion resistance category		RC5	RC5	RC5	EN 10169
Max. continuous operating temp.	(°C)	60	90	60	Tata Steel
UV resistance category		Ruv4** dE <2 GR >80%	Ruv4 dE <2 GR >80%	Ruv4 dE <2 GR >80%	EN 10169

* µm = micron

** Colorcoat HPS200 Ultra® has been tested for more than 6000 hours QUVA in excess of the requirements of the Ruv4 classification and has been further tested against QUVB and out-performs other standard plastisol coatings.

General notes

The figures contained in this table are typical properties for solid colours and do not constitute a specification. Tested in accordance with the latest versions of EN 13523 and EN 10169 at time of publication.

Tata Steel can also provide fire performance data to European Classification standards. These figures relate to the coating system. For details on test methods see www.colorcoat-online.com

Colorcoat® guarantees for flashings

Confidex® Guarantee

The Confidex® Guarantee is available for flashings fabricated from Colorcoat HPS200 Ultra® and Colorcoat Prisma® where either the building envelope roof and/or wall cladding system is also supplied in these products.

We are so confident in our product that we cover the cut edges for the entirety of the guarantee period with no mandatory inspections or maintenance. In doing so we remove the need to go on the roof to maintain the validity of the guarantee - Confidex® is the only pre-finished steel guarantee on the market that offers this.

The Confidex® Guarantee is direct with the building owner meaning that in the case of a claim the contact with Tata Steel is direct rather than having to go through the supply chain, saving time and money. What's more this is transferable should the building owner change by simply filling in the form on the back of the guarantee certificate.

Who applies?

Usually the cladding contractor or the cladding system manufacturer, but anyone in the supply chain can apply. To register the Confidex® Guarantee for your building and flashings contact the Colorcoat Connection® helpline on +44 (0)1244 892434 or visit www.colorcoat-online.com/registration

Performance guarantees

Where only the flashings on a building are fabricated from Colorcoat HPS200 Ultra®, Colorcoat Prisma® and Colorcoat® LG a performance guarantee is available.

This is a performance guarantee based on the paint integrity and does not include cut edges.

Colorcoat HPS200 Ultra®

Available with a performance guarantee of up to 30 years for walls and 25 years for roof flashings⁴.

Colorcoat Prisma®

Available with a performance guarantee of up to 20 years for walls and 15 years for roof flashings⁴.

Colorcoat® LG

Available with a performance guarantee of up to 20 years for walls and 15 years for roof flashings⁵.

Who applies?

Performance guarantees for flashings are issued for Colorcoat® pre-finished steel supplied by a Colorcoat® Accredited Distributor on application through the distributor. Please contact the distributor who supplied the Colorcoat® pre-finished steel for the fabrication of the flashings if you require a performance guarantee.

Table 2. Product comparison for flashings

	Walls	Roofs	Walls	Roofs					
	Maximum Confidex® Guarantee available as part of building envelope		Maximum performance guarantee for paint integrity		Metallic substrate	Corrosion performance	Aesthetic performance	Robustness	Performance guarantee
Colorcoat HPS200 Ultra®	40 years	40 years	30 years	25 years	Galvalloy®	****	****	****	****
Colorcoat Prisma®	30 years	30 years	20 years	15 years	Galvalloy®	****	****	***	**
Colorcoat® LG	N/A	N/A	20 years	15 years	Standard HDG weight	***	***	***	**
Non-Tata Steel leathergrain	N/A	N/A	15 years	10 years	Below standard HDG weight	*	**	**	*

Key **** Best available *** Well suited ** Suitable * Adequate HDG Hot Dip Galvanised

Guarantee notes

1. Guarantee periods are based on inland UK and Ireland locations. Guarantees in coastal locations are lower.
2. Full terms and conditions of the Confidex® Guarantee are on the reverse of the application form, which is available from Tata Steel.
3. The Confidex® Guarantee periods on the diagram are applicable to UK and Ireland only.
4. Colorcoat HPS200 Ultra® and Colorcoat Prisma® guarantee periods are based on roof elevations greater than 1°.
5. Colorcoat® LG guarantee periods are based on roof elevations greater than 4°.



www.colorcoat-online.com

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