

TATA STEEL



Colorcoat® pre-finished steel for relocatable modular buildings



Colorcoat[®],
because where
it comes from
matters



Relocatable and modular buildings have become increasingly popular for providing secure habitable accommodation for a multitude of functions; from temporary site cabins, to offices and highly sophisticated semi-permanent structures for both private and public sector clients.

In this growing market, design, product specification and flexibility are key to both the manufacturer and the end client.

Colorcoat® Accredited Distributors

We have been working with our Colorcoat® Accredited Distributors for over 25 years to provide quality pre-finished steel products and services into the relocatable and modular buildings sector.

This robust supply chain has been assessed for storage, handling, processing, delivery and 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.

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.

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.

Front cover image: Campsmount Technology College, Doncaster. Photograph supplied by Portakabin Limited.

Page 3 image: Reaseheath College, Cheshire. Photographs supplied by Elliott Hire.

Page 2 image: Athlete's Village, Stratford. Photograph supplied by Elliott Modular Buildings.

Colorcoat Connection® helpline +44 (0) 1244 892434



Colorcoat® for relocatable and modular buildings

Colorcoat HPS200 Ultra®

The latest generation pre-finished steel suitable for the construction of the roof and walls of permanent modular buildings, Colorcoat HPS200 Ultra® offers an exciting colour range and delivers twice the colour and gloss retention of longer life a standard plastisol.

- 200 µm unique, eco-designed, durable and abrasion-resistant coating system.
- Unique Scintilla® emboss gives 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 Galvalloy® metallic substrate by Tata Steel, providing unrivalled corrosion protection.
- Available with a performance guarantee of up to 30 years for walls and 25 years for roofs of relocatable and modular buildings¹.
- 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.

- 50 µm robust and durable coating system.
- Available in 27 colours including 12 metallic and 3 matt.
- Unique Galvalloy® metallic substrate by Tata Steel providing unrivalled corrosion protection.
- Available with a performance guarantee of up to 20 years for walls and 15 years for roofs of relocatable buildings¹.
- 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 construction of the roof and wall for temporary and semi-permanent relocatable and modular buildings where good performance is required at a competitive price.

- 200 µm 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.
- Available with a performance guarantee of up to 20 years for walls and 15 years for roofs of relocatable and modular buildings¹.
- High performance reverse side backing coat as standard.
- BBA Certification of durability in excess of 25 years.

Table 1. Product comparison for re-locatable and modular buildings

	Maximum performance guarantee for paint integrity	Metallic substrate	Corrosion performance	Aesthetic performance	Robustness	Performance guarantee
Colorcoat HPS200 Ultra®	30 years	Galvalloy®	****	****	****	****
Colorcoat Prisma®	20 years	Galvalloy®	****	****	***	**
Colorcoat® LG	20 years	Standard HDG weight	***	***	***	**
Non-Tata Steel leathergrain	10 years	Below standard HDG weight	*	**	**	*

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

Guarantee notes

1. Please note guarantee periods contained in Colorcoat® pre-finished steel colour cards are specific to the building envelope. For relocatable and modular buildings refer to the specific guarantee periods stated in Table 1.
2. Guarantees in coastal locations are minus 5 years. This is a performance guarantee based on the paint integrity.
3. Colorcoat® LG guarantee periods are based on inland UK locations only and roof elevations greater than 4°.
4. Colorcoat HPS200 Ultra® guarantee periods are based on inland UK locations only and roof elevations greater than 1°.

Performance guarantees

Performance statements for relocatable buildings constructed from Colorcoat® pre-finished steel are available on application through the Colorcoat® Accredited Distributor.

For more information about Colorcoat® Accredited Distributors and the products and services they offer visit www.colorcoat-online.com/distributors or call the Colorcoat Connection® helpline on +44 (0) 1244 892434 or email colorcoat.connection@tatasteel.com

Colour reassurance

Colorcoat® pre-finished steel colour cards and hand 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/samples

Table 2. 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, 1 kg)					
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
Reaction to fire		Class 0	Class 0	Class 0	BS 476 part 6 & 7
Resistance to fire		Class AA	Class AA	Class AA	BS 476 part 3

* 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 standard colours and do not constitute a specification. Tested in accordance with EN 13523 and EN 10169.

Tata Steel can also provide fire performance data to European Classification standards. These figures relate to the coating system.

Meeting the requirements of relocatable and modular buildings

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 and all available 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 widths and gauges stocked by our 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 relocatable and modular buildings that meet, and exceed, the current requirements of Building Regulations. For example for Part L, meeting the requirements 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 exterior building fabric, has an important role in the design and construction of relocatable and modular buildings.

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.

Structural integrity

The gauge and correct mechanical properties of the pre-finished steel used in a relocatable and modular building has a significant impact on the overall structural integrity of the finished unit.

The European Standard EN 10143:2006 specifies the thickness tolerances for hot dipped metal coated low carbon steel.



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 ensuring that a pre-finished steel product meets the required performance criteria required by the unit design.

The use of Colorcoat® pre-finished steel ensure 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. Relocatable and modular buildings contribute to the overall ethos of sustainable development due to their flexibility in design, efficient use of materials and overall adaptability.

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. Help and support on this important topic is available if required.

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.

Relocatable and modular buildings are manufactured off-site and as a consequence on-site waste is minimal. Waste generated during the manufacture and processing of Colorcoat® pre-finished steel is kept to a minimum using lean manufacturing techniques and any waste generated is easily recycled.

ISO 14001

Is the internationally recognised standard relating to environmental management systems. 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 products are certified to BES 6001 Responsible Sourcing standard, the first pre-finished steel envelope 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 recyclability of steel and it is easy to segregate from other construction materials. 100% recyclable without any loss of quality or performance, steel is one of the most recycled construction materials.

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 pre-finished steel paint coating.

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

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www.colorcoat-online.com

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