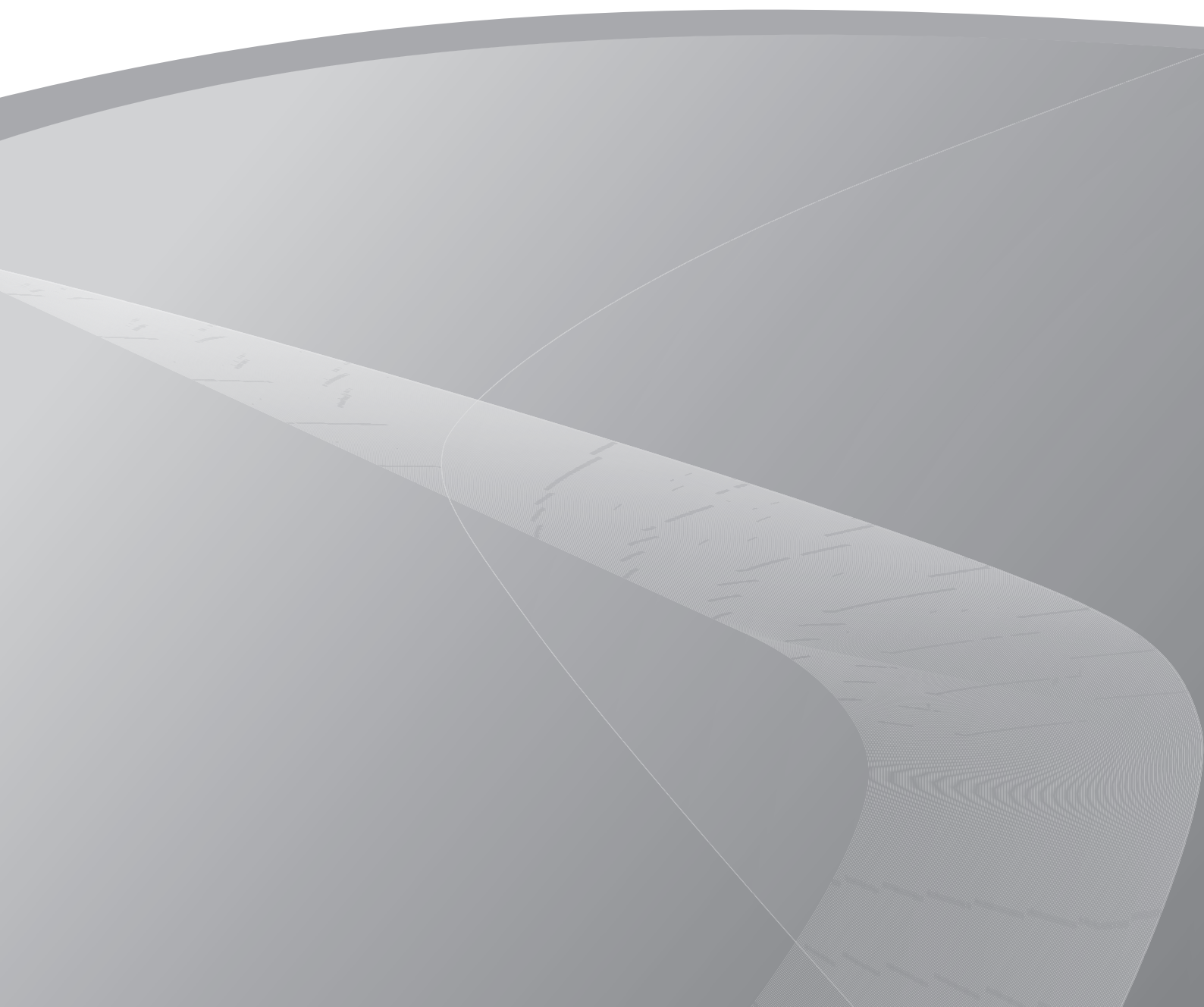


TATA STEEL



MagiZinc®

The innovative metallic coating for pre-finished steel



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MagiZinc® is an innovative Zinc-based metallic coating with additions of Magnesium (Mg) and Aluminium (Al) and is available with both Colorcoat® PE 15 (pre-finished steel for internal applications) and Colorcoat® PE 25 (pre-finished steel for external applications).

These products benefit from the excellent corrosion protection of MagiZinc® and offer a substantial and sustained contribution to the environment due to the reduction of Zinc used in manufacturing.

What is MagiZinc®?

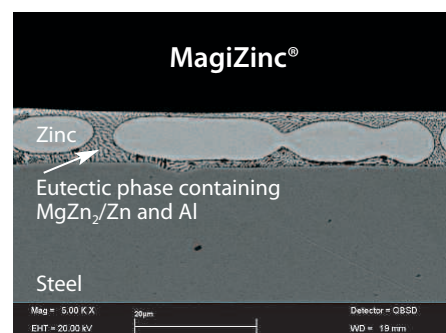
MagiZinc® is a new metallic coating applied to the steel in a continuous hot dip galvanising process. The Zinc-based coating incorporates Magnesium and Aluminium.

MagiZinc® consists of pure Zinc crystals surrounded by $MgZn_2/Zn$ and Al. When the surface is exposed, an oxide layer is formed on the metallic coating surface that forms a stable barrier and reduces the rate of corrosion.

Product development and sustainability

Sustainability is an important driver for Tata Steel and as such, Tata Steel is constantly striving to develop durable products that utilise less raw material.

The development of MagiZinc® is evidence of this. It offers a substantial



Microscopic image of a cross section of MagiZinc® coated steel

and sustained contribution to the environment due to the reduction of the Zinc used in manufacturing.

MagiZinc® is the result of years of Research & Development activities which is patented by Tata Steel.

Corrosion of (unpainted) MagiZinc® in salt spray testing



SST is a non-cyclic test where a 5% NaCl solution is sprayed at a temperature of 35°C
Test performed according to EN 13523-8 (ASTM 8117)

MagiZinc® products

After the successful introduction of unpainted MagiZinc®, Tata Steel completed the development of painted products on the MagiZinc® coating.

Through Research and Development work, Colorcoat® PE 15 and Colorcoat® PE 25 have been developed to give an optimal performance with the MagiZinc® coating.

Unpainted MagiZinc®

The MagiZinc® coating is used for various internal applications like ventilation systems, cable trays, metal shelving and liner trays.

For further information on unpainted MagiZinc® please contact Tata Steel.



Colorcoat® PE 15

This product, which is used for internal applications, is generally supplied in white tints to ensure light reflectivity giving a reduction in lighting costs.



Colorcoat® PE 25

An economic product suitable for external building cladding particularly in non-aggressive environments.

Extensive testing

To ensure the integrity of Colorcoat® products, Tata Steel uses comprehensive laboratory and outdoor tests to validate product performance. Tata Steel has 50 years experience in the development and manufacture of pre-finished steel. Our experience and expertise allow us to understand the performance of new products in comparison with existing products.

All product testing is carried out in accredited laboratories to international standards and is done both internally and externally with independent authorities.

Laboratory testing

The products have been tested in a large number of accelerated tests. The test programme includes tests under extreme conditions to allow judgement of performance of the products in real life conditions.



Outdoor exposure

Colorcoat® PE 25 was subjected to 2 years outdoor exposure at ECCA accredited test sites. Outdoor exposure tests give valuable information about performance in real life conditions.



Building components in use

Since the launch in summer 2009 Colorcoat® PE 15 and Colorcoat® PE 25 with MagiZinc® have been widely applied in numerous building products, such as profiles, panels, roof tiles and flashings.



Performance

The comprehensive testing programme confirms that the performance of Colorcoat® PE 15 and Colorcoat® PE 25 with MagiZinc® is at least equal to Z275 based products, with better cut edge protection and reduced risk of white rust as tested in salt spray testing.

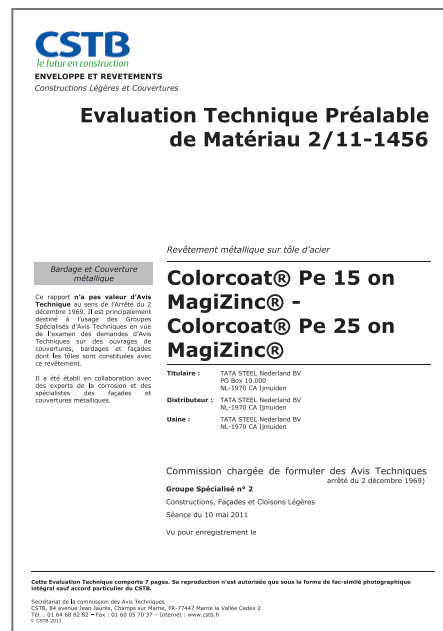
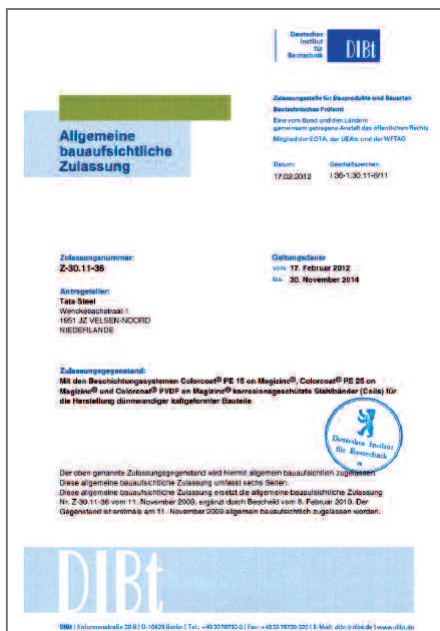
MagiZinc®

Official Independent Certification

Colorcoat® PE 15, Colorcoat® PE 25 and Colorcoat® PVDF have been subjected to rigorous independent testing by the University of Karlsruhe in Germany.

Following the extensive test programme, the DIBt (Deutsches Institut für Bautechnik) has issued Zulassung (Approval Z-30.11-36) for building applications corrosion class 3 for Colorcoat® PE 25 on 140gr/m² MagiZinc® and corrosion class 2 for Colorcoat® PE 15 on 100gr/m² MagiZinc®. Currently Colorcoat® PVDF on MagiZinc® is also approved by DIBt.

Furthermore these products are also certified by many other national building bodies such as CSTB in France, Sintef in Norway, and ITB in Poland. Copies of the approval and test reports are available on request.



Colorcoat® reassurance

Colorcoat® pre-finished steel products for the building envelope, are sold under the Colorcoat® brand, which for 50 years has provided a mark of quality and metal envelope expertise.

Tata Steel is a proven manufacturer of consistent quality products for roof and wall cladding.

They are supplied through a small number of market leading cladding system manufacturers, able to provide the very highest quality and service.

Other Colorcoat® products & services

For more demanding applications in aggressive environments we recommend to specify either Colorcoat HPS200 Ultra® or Colorcoat Prisma® using Tata Steel Galvalloy™ metallic coating for the best proven performance.

If you have any queries please contact the Colorcoat Connection® helpline.

www.colorcoat-online.com

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(Formerly Corus)

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