

TATA STEEL



MagiZinc®

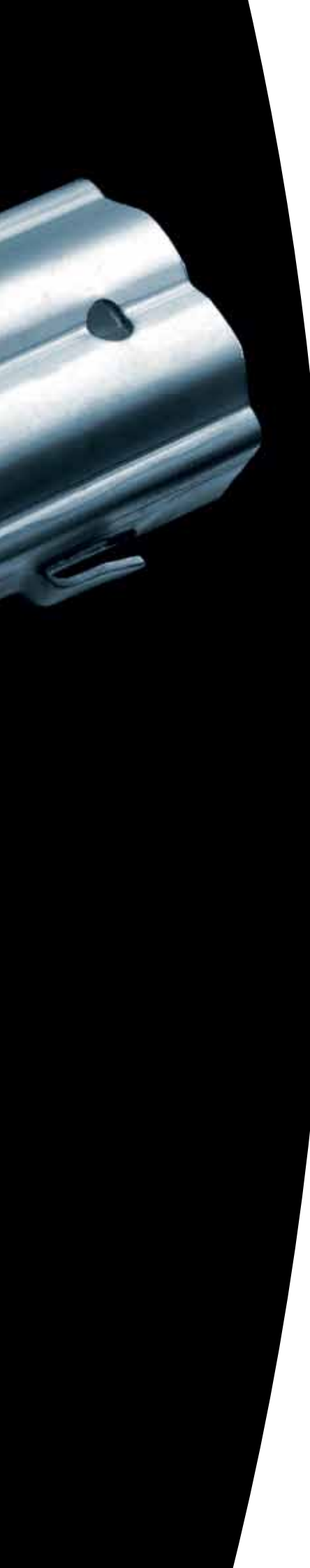
For superior corrosion protection



MAGIZINC[®] PROTECTION THAT LASTS

A close-up, low-angle shot of a metallic surface, likely a roof or industrial structure, featuring several rivets and bolts. The surface has a smooth, reflective finish, and the lighting creates strong highlights and shadows, emphasizing the texture and form of the metal components.

MagiZinc[®] is an innovative replacement for conventional galvanised steels. It provides superior corrosion protection even in harsh environments. Its unique formulation means that MagiZinc[®] outperforms the protection of conventional galvanised steel. Suitable for a wide range of indoor and outdoor applications, it can be used to reduce coating weight or extend product life. This means less use of valuable resources and reduced environmental impact.

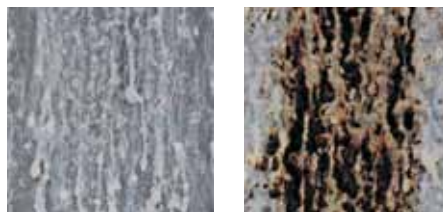


A product that performs

MagiZinc® was developed to deliver outstanding corrosion protection compared to conventional galvanised zinc coating. Its unique formula, incorporating carefully-controlled levels of magnesium and aluminium, provides a stable barrier to reduce the corrosion rate. MagiZinc® has been extensively tested by Tata Steel. Its very high protection performance has also been proven in rigorous, independent tests at the University of Karlsruhe in Germany. The certificates issued by DIBt in Germany and SP Sitac in Sweden confirm that MagiZinc® can be used for applications in corrosive environments.

Comprehensive outdoor performance testing demonstrates the long-lasting product life even in humid climates and harsh environments. MagiZinc® is successfully used

MagiZinc (140gr/m²) and Zinc (275gr/m²) after 5 weeks in salt spray test



in demanding environments for a wide range of interior and exterior applications. These include solar panel structures, gas meters, air conditioning units and tools and fixtures used in stables and vineyards.

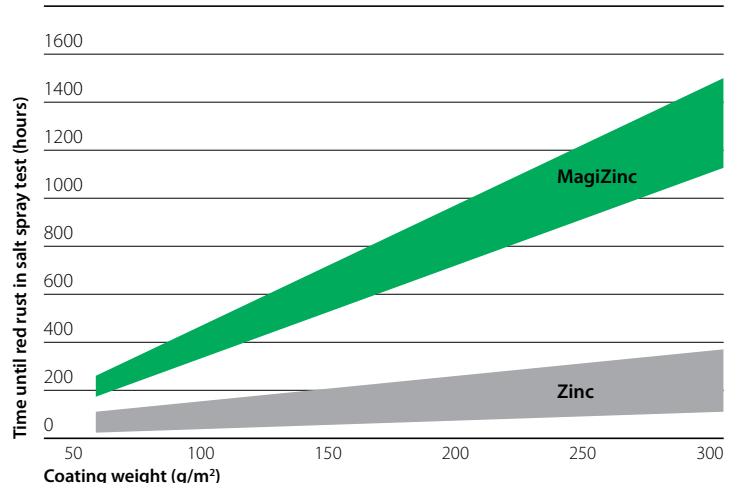
The benefits are clear

MagiZinc® delivers significant benefits for both end-product performance and material processing. Its superior corrosion protection – even at cut edges – will extend product life and it offers excellent formability and weldability for efficient processing.

MagiZinc® benefits include:

- Extended end-product life – delivering reduced maintenance and / or replacement costs
- Reduced production time and cost – through elimination of external batch galvanizing
- Ability to produce complex-shaped components with ease – saving assembly time and providing the opportunity to down-gauge
- Reduced environmental impact – through extended product life and reduced raw material consumption

MagiZinc and galvanised samples




MAGIZINC[®] IN ACTION

Solar panel structures

MagiZinc[®] is a popular choice for the production of cold-formed steel profiles for solar panel supports.

These structures are constantly exposed to the elements and are expected to perform for at least 25 years.

The long-lasting corrosion protection provided by MagiZinc[®], combined with excellent formability, reduces component costs.



LONG-
LASTING
CORROSION
PROTECTION



Extended product life

The superior protection levels delivered by MagiZinc® mean increased product life expectancy. It offers an attractive alternative for outdoor applications where batch-galvanised components are currently used or where components are produced from galvanised sheet with a thick zinc layer. MagiZinc® delivers extended product life compared with conventional galvanised steel, even in demanding environments. For example, the unique barrier properties mean it offers long-lasting performance in ammonia-rich agricultural settings.

Better for processing

During its development, MagiZinc® was subjected to extensive material application trials – including welding, roll forming and deep drawing - to ensure that it can be processed with ease.

The surface hardness contributes to low tool pollution and low friction during deep drawing and roll forming – offering outstanding formability. The reduced coating thickness allows for a smooth welding process. A chromium-free passivating agent means MagiZinc® is compatible with common paint systems.



Product Range:

Steel grades:	DX51-DX56 / S220GD-S350GD / HX220LAD-HX420LAD
Thickness (gauge):	0.4-2.0mm
Width:	max 1550mm
Coating thickness:	100, 140, 200gr/m ² (other on request)
Surface:	A and B
Surface treatment:	Oiled or passivated (chromium free)

Other specifications on request

MANUFACTURED WITH PRECISION

We utilise modern and reliable steelmaking methods to produce the MagiZinc® range. Annual external auditing of the MagiZinc® production process – coupled with continuous corrosion testing of samples – ensures a very high corrosion protection performance.

Continuous investment in production capabilities (a third galvanising line will be MagiZinc®-capable in 2013) means an increasing product range and improved

delivery reliability. Tata Steel has many decades of galvanising experience and has been producing MagiZinc® since 2007. This invaluable experience helps us to ensure that the products meet the needs of the modern world with its growing demands for sustainability. We recognise that the skills and knowledge of our people are vital to the success of our operations. We continue to invest in our people to ensure the safe, reliable and efficient production of high quality steel.





Tata Steel

Tata Steel is one of Europe's largest steel producers. We serve many different and demanding markets worldwide. These include lifting and excavating, aerospace, automotive, construction, energy and power, rail and packaging. Our primary steelmaking operations in the UK and The Netherlands are supported by a global sales, processing and distribution network. Our European operations are a subsidiary of Tata Steel Group, one of the world's top ten steel producers.

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.



Working with you

By working in partnership with you, we find the best solutions to meet your needs and help your business to perform. Our technical services team is available at short notice to assist you and your customers. These skilled engineers can apply their knowledge of steel and its application helping customers optimise productivity, efficiency and product performance.

Customers can also take advantage of our research and development resources. Our scientists and technical experts can help resolve complex engineering issues and assist in the development of innovative products.



Sustainability

The reduced coating thickness and long-term performance of MagiZinc® make it a sustainable choice. Fewer natural resources are used to deliver a coating with outstanding corrosion protection. The extended life of products made from MagiZinc® means longer replacement cycles – with associated savings in raw materials and energy consumption.

Our steel is fully traceable and produced in accordance with ISO 14001 for environmental protection. We have adopted a class-leading framework for safety across our operations. We drive sustainability in our operations by focusing on manufacturing efficiency, safety, waste minimisation, carbon dioxide reduction and energy savings.

www.tatasteeleurope.com

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