



KMCGROUP



MEKOTUBING

"You imagine, we can shape it."

www.mekometal.com.tr



KMCGROUP



Technical Laboratory & Research and Development (R&D)

We maintain our quality perspective by performing physical & chemical tests in our own in house laboratories and R&D center, from raw material to finished products.

Tooling

The design and production of our molds and fixtures, that are using in every stage of the production, are produced by our own experienced technical team.



Mekomag is made with ArcelorMittal's Magnelis® self-healing metallic coated steel



Magnelis®

The harshest environments need the toughest skin protection

Magnelis® is an exceptional, new metallic steel coating providing surface protection in a variety of applications against long-term wear and tear.

This unique coating offers a combination of attributes. Magnelis® provides:

The best corrosion resistance performance; up to 10 times better than galvanised steel

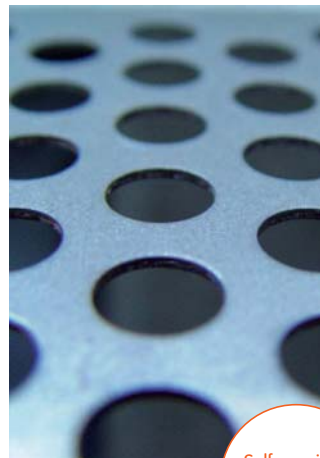
The best suited protection to withstand harsh environments

The most cost-effective alternative to the post-galvanised process

Magnelis® examples of applications



Environmentally friendly



Self-repairing protection for cut edges



An alternative to the post-galvanising process and to aluminium or stainless



Superior corrosion resistance in chloride and ammonia environments

Magnelis® is a registered trade mark of ArcelorMittal.
Greenhouse photo: Philippe Vandenameele
Perforated plate and cowshed photos: Didier Bridoux. / Safety barrier: Tubosider
Magnelis® samples Photographer: Jeroen Op de Beeck

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New improved MekoMag Profiles® are high strength roll-formed sections made from strip pre-coated with the innovative Magnelis® Coating, designed for improved corrosion resistance.



Magnelis® Technology

Magnelis® is produced on a conventional industrial hot dip galvanizing line. The steel substrate is dipped in a molten bath to apply a metallic zinc coating with a unique chemical composition comprising 3.5% aluminum and 3% magnesium. This 3% magnesium is crucial, as it creates a stable and durable layer across the entire surface, ensuring far more effective corrosion protection than coatings with a lower magnesium content. Comparative tests have shown that ArcelorMittal's Magnelis® offers significantly better performance than alternative European products.

Magnelis® Durability

The Magnelis® coating provides a smooth surface with a uniform coating thickness, purpose designed to perform in general, and construction applications.

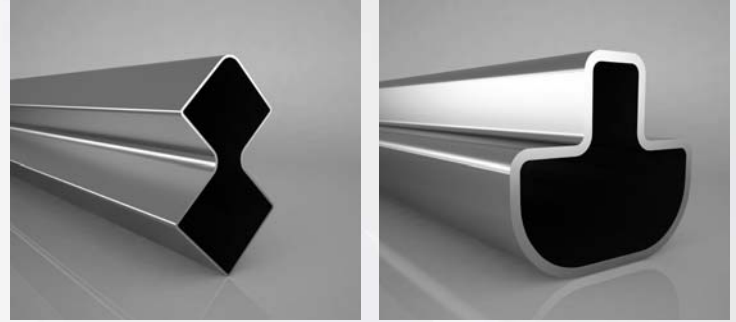
Magnelis® is an exceptional, new metallic steel coating providing surface protection in a variety of applications against long term wear and tear.

This unique coating offers a combination of attributes.

- The best corrosion resistance performance; up to 10 times better than galvanized steel
- The best suited protection to withstand harsh environments
- The most cost-effective alternative to the post-galvanized process
- Magnelis® has a natural dark grey, spangle-free smooth aesthetic appearance.
- Magnelis® is the optimal coating to protect against atmospheric corrosion,
it: Withstands the harshest of environments the destruction of coating that occurs in an ammonia environment is seven times less with Magnelis® than with a standard zinc coating and in highly alkaline environments (those with a pH between 10 and 13)
Magnelis® corrosion resistance trumps other metallic coatings
- Protects exposed cut edges from corrosive reactions thanks to a thin zinc-based protective film with magnesium
- Guarantees a longer-lasting, active coating protection over time

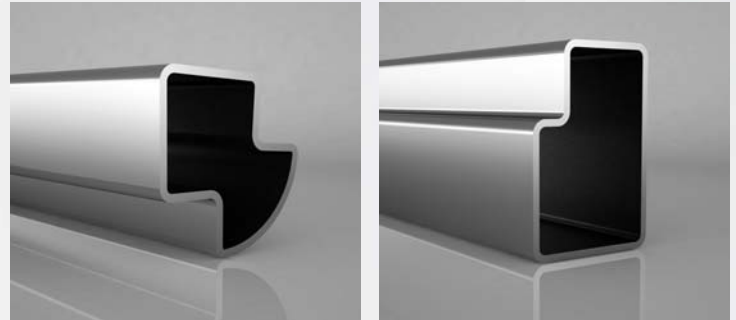
Welding of Magnelis®

- Most used welding processes are suitable with Magnelis® coating; GMAW, TIG, HFI, Spot, Laser, Plasma etc..
- Welding parameters for Magnelis® are similar to galvanized material welding parameters
- Despite lower coating thickness it provides the same corrosion resistance besides improved weldability.
- For corrosion protection it is necessary to re-apply over the welded point.



Magnelis® Welding Protection

- As with other coatings, Magnelis® coating can be damaged in the welding zone. Depending on the application, the corrosion resistance – thanks to the self-healing effect of Magnelis® coating can be sufficient. If not, measures can be taken to re-protect the weld zone.
- Re – protection of weld via application of a layer of typically Al, Al/Zn (e.g. 85%/15%) or Zn which can be applied by Electric Arc Spraying and/or painting/brushing.



Self-healing Property

One of the most remarkable properties of Magnelis® is its ability to self-heal on cut edges. This is typically where corrosion begins.

A zinc-based protective film containing magnesium forms on the cut edge to protect it from the environment.

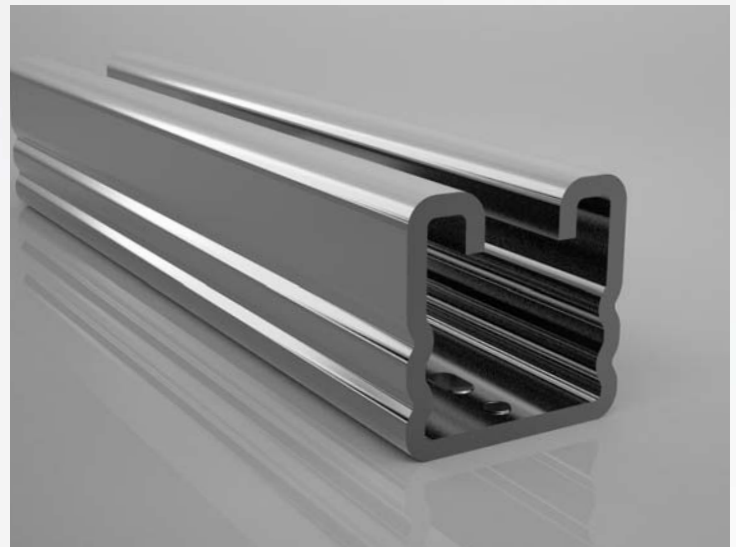
Magnelis® also demonstrates superior performance in industry-standard salt spray tests. Steels coated with Magnelis® showed no signs of corrosion weeks after other samples were completely corroded. Magnelis® performs more than three times better than galvanized steels.



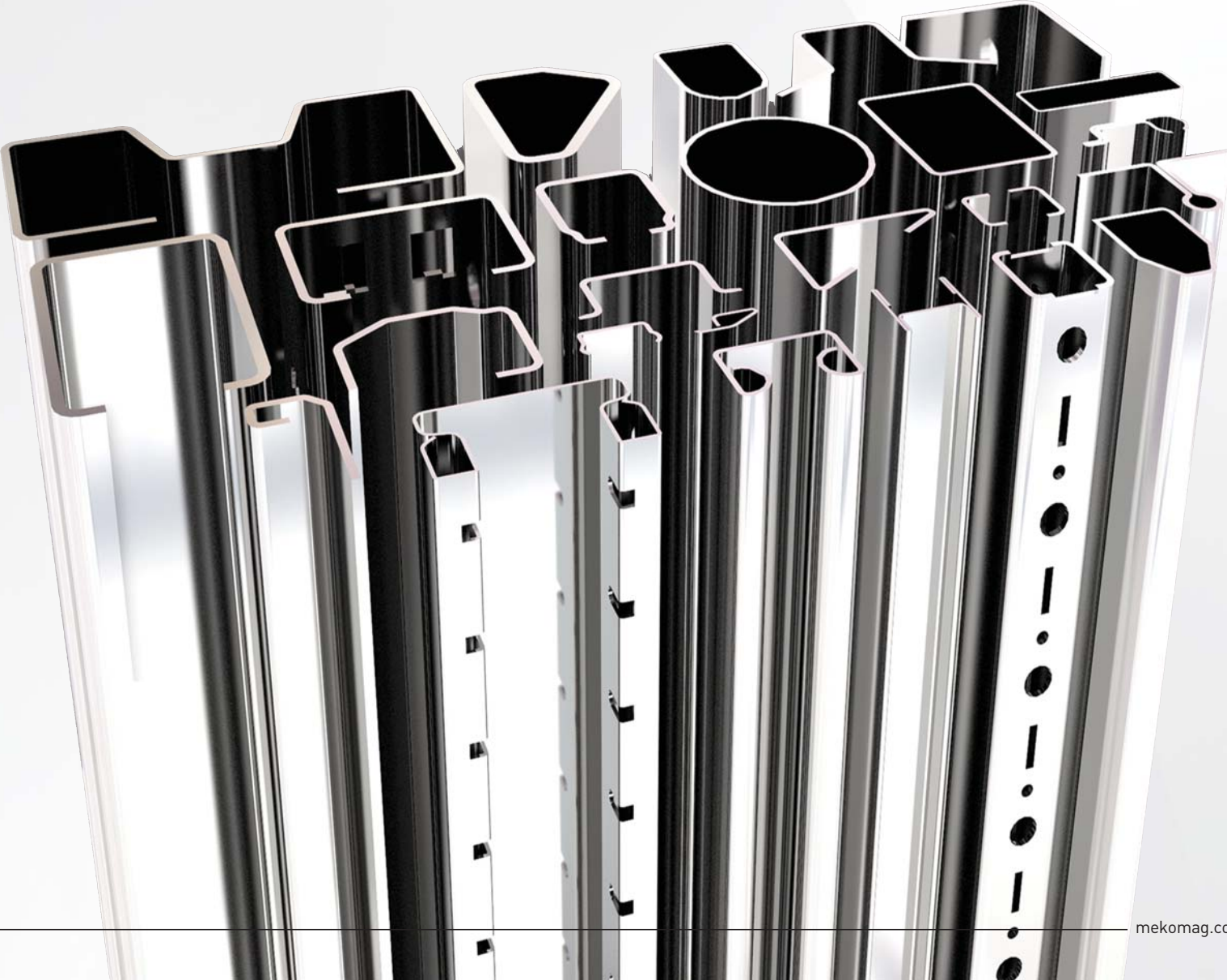
Magnelis® Excellent Workability

Thanks to its highly resistant, adherent metallic layer, Magnelis® can be formed in a variety of methods, including bending, drawing, profiling etc. By decreasing the amount of metallic coating, while safeguarding corrosion resistance levels, spot welding is consequently improved. A protective oxide barrier covers the weld, preventing the development of red rust. Thinner coating facilitates processing and delivers substantial savings. Magnelis® performs three times better than standard galvanized steel, reduces powdering effect and loses less coating weight in processing tools.

MekoMag is recommended the use of Magnelis® tubes in Solar Projects, Civil Works & Steel Constructions Project, Animal Housing, Agriculture and Greenhouse Project, fencing and other applications. The feedback we get from our customers is extremely positive.



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Magnelis®