

Jetskin™

Consistent surface, dependable protection

Jetskin™ is a metallic coating for steel which is applied using Jet Vapor Deposition (JVD). Jetskin™ provides a homogeneous coating on one or both sides of the steel. It offers excellent corrosion protection, particularly for indoor applications.



- Outstanding surface quality for unpainted or post-painted products
- Homogeneous coating with a matt aspect
- Double- or single-sided zinc coating
- Customisable coating thickness per side
- Significantly lower ecological footprint due to the efficiency of the new JVD process.

A breakthrough coating process

During the Jet Vapor Deposition process, zinc vapor is sprayed onto a steel strip moving at high speed in a vacuum chamber. JVD allows ArcelorMittal to coat substrates which cannot be protected by conventional hot dip galvanisation. It opens new possibilities for the development of innovative products.

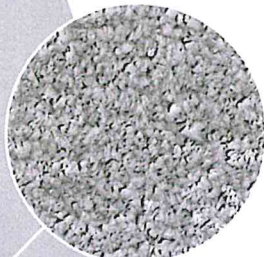
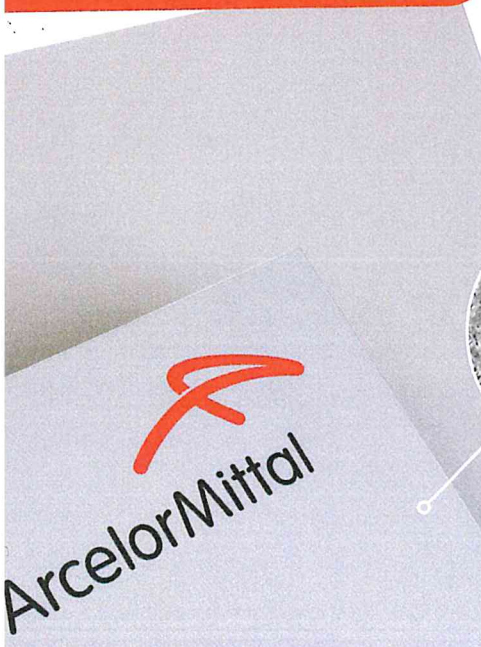
JVD is a breakthrough process, both in terms of production and its environmental footprint. Jetskin™ is compliant with the European directive on the Restriction of Hazardous Substances (RoHS) and consumes a relatively low amount of energy. This limits CO₂ emissions which provides an important environmental advantage over[®] other coating processes.

Uniform aspect

Jetskin™ has a homogeneous metallic matt appearance which gives coated applications an appealing aspect. Jetskin™ is applied to bare steel and can be used in this state to preserve the natural aesthetic of the metal. Alternatively Jetskin™ can be post-painted. Thanks to the fine crystal microstructure of Jetskin™, the paint layer is deposited in a regular and homogeneous way, resulting in an excellent surface aspect and aesthetic.

Respecting the environment

ArcelorMittal's JVD coating technology is a highly efficient process. According to ISO 14021, Jetskin™ is a fully recyclable product. The Life Cycle Assessment of Jetskin™ demonstrates significant environmental benefits in terms of global warming and a reduced use of resources (in particular a reduction in fossil fuel use and water consumption) compared to electrogalvanised steel.

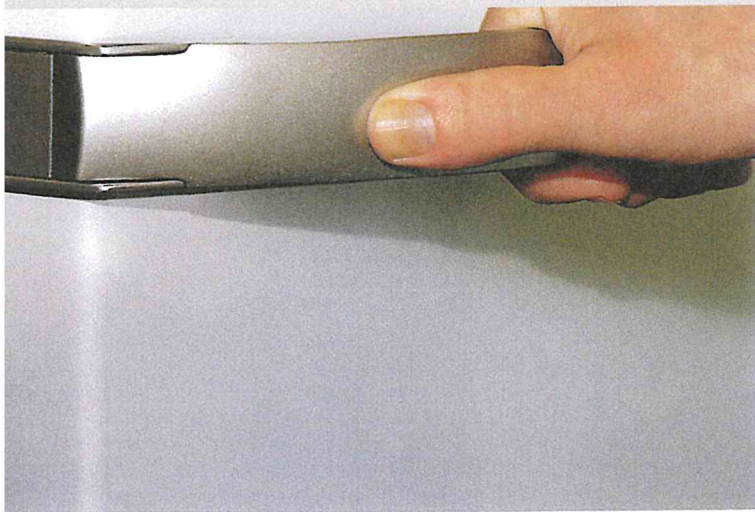


Jetskin™

EG (electrogalvanised)

Microscope view (5000x)





Enhanced weldability

Jetskin™ behaves better than conventional electrogalvanised steel when it comes to resistance spot welding. The nature of the metallic coating has a fundamental and positive effect on the lifespan of the electrodes. Thanks to its regularity and fine microstructure, the Jetskin™ coating increases the electrode lifespan by around 25 percent compared to EG.

The use of Jetskin™ will increase the lifespan of electrodes

Modality	EG Zn	Jetskin™
Thickness (mm)	0.68	0.72
Min. diam. (mm)	4	4
Welding current (kA)	8.9	7.9
Electrode life (spots)	1600	2000

Feasibilities and technical characteristics

	Coating thickness per side (l/10 µm)	Coating thickness per side (g/m ²)
	ZV 25/25	18/18
	ZV 50/50	36/36
Coating double sided	ZV 75/75	54/54
	ZV 100/100	72/72
	Customised coating thickness per side on request	
Grades	Steels for cold forming Structural steels High strength low alloy steels Other steel substrates on request.	
Dimensions	Thickness: 0.4 to 2.0 mm Width: 750 to 1550 mm	
Surface treatment	C: E-passivation® P: Phosphated O: Oiled	

Jetskin™ is delivered according to EN 10152

Applications

The surface quality of Jetskin™ makes it ideal for manufacturing visible parts and components.

Jetskin™ can be post-painted and offers an outstanding surface aspect. The paint layer will adhere perfectly to the metallic coating. Jetskin™ is ideal for:

- Indoor applications
- Domestic appliances such as washing machines, dryers, dishwashers, cookers, microwave ovens, and refrigerators
- Electronics such as computers, laptops, hi-fi, and TV casings
- Furniture including cupboards, desks, shelves, and electrical cabinets
- Air conditioners
- Ceilings
- Drums (small and middle-sized).

Forming

Jetskin™ coated steels can be easily formed using bending, roll forming, or deep drawing processes. The thinness of the coating, its excellent adherence to the steel, and the absence of an intermetallic alloying layer ensure perfect forming results.



Credits

Sample pictures: Philippe Vandenameele
Drum cap: courtesy of Siepe GmbH
Microscope views: ArcelorMittal Global R&D



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