

# Colorissime® Evolution



ZM Evolution an innovative Zinc Aluminium Magnesium metallic coating designed for pre-painted steel.

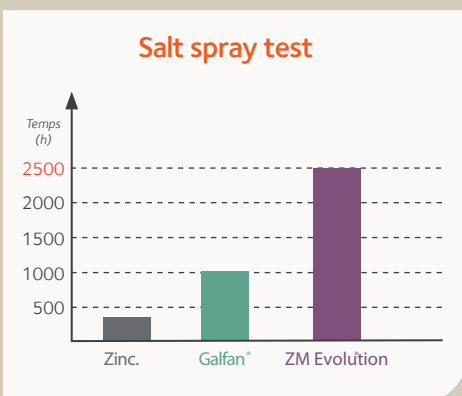
Arval innoves continuously to offer the most performing materials on the whole range of profiles, panels and cassettes.

### A new metallic coating

The pre-painted steels of **Colorissime® Evolution** are produced on our french industrial lines. The coated steel is made on a classical hot dip galvanising line, but dipped in a molten bath with a unique metallic composition of zinc, aluminium and magnesium. The composition of these three elements is crucial: Magnesium and aluminium create a stable and durable layer across the entire surface and give as far more effective corrosion protection than standard pure zinc coating. Moreover this unique composition offers significantly superior flexibility than alternative European products.

### The most effective composition

Nothing offers better protection than **Colorissime® Evolution**. The zinc provides a traditional cathodic protection, while aluminium contributes to slow down this sacrificial reaction. Magnesium allows to reduce edges creeping. The destruction of the coating that occurs in corrosive environment is three times less than with standard zinc coating. A range of metallic coated products were submitted to salt spray test. The results clearly highlight the superior corrosion resistance of **Colorissime® Evolution**.



### Properties

#### Superior corrosion resistance

- ▶ **Colorissime® Evolution** performs two to three times better than standard galvanised steel.
- ▶ Very low paint delamination on edges and scratches compared to zinc coated steels.

#### Workability

- ▶ Galvanised steels of **Colorissime® Evolution** have been especially designed for construction market. They are usable on the full range of Arval's products. Thanks to its highly resistant, adherent metallic layer, it can be formed in a variety of methods including bending, and profiling, without any crack in the area of severe constraints.

- ▶ **Colorissime® Evolution** has been certified by the CSTB and DIBT for pre-painted steels, and is mentioned in our technical agreements.



### Environmentally responsible for a better future

Thanks to **Colorissime® Evolution**, you contribute :

- ▶ To ensure the preservation of natural resources since it uses less zinc than pure zinc coatings. In the world, every year, five millions tons of zinc are extracted to be used for steels galvanisation while zinc mines resources have a limited life time expectancy.
- ▶ To reduce CO2 emissions : by using lighter products, lower energy is used in the transport, for building with higher durability.



### More protection

Colorissime Evolution offers a superior corrosion resistance compared to standard galvanised steel. Life time expectancy is 3 times the standard zinc one.



### More flexible

The chemical composition of the metallic coating has been optimised to provide the best in class flexibility necessary to the steels workability. This property contributes to a higher corrosion protection in the area of severe bends.

### More aesthetic

The modifications realised on our galvanisation lines, allow the production of coated steels with a very high level of surface aspect: natural grey, spangle-free smooth aesthetic aspect, a really low waviness that gives to the pre-painted steel an exceptional aspect.

### More lightness

Thanks to a lower density and an inferior coating weight of metallic coating, **Colorissime® Evolution** allows to reduce to 4% the weight of elements. This improvement contributes to an easier handling of elements and to a reduced transportation costs.

### More environmental friendly

With **Colorissime® Evolution** you...  
 -contribute to preserve natural zinc resources.  
 -limitate soils pollution by zinc oxydes  
 -increase life time expectancy of building  
 -reduce CO2 emissions by using lighter elements.