

MP4 painting system

The name "MP4 system" identifies a steel painted with polyester-polyammidic resins or with a polyester having a wrinkled surface; the first solution ensures for a good flexibility of the final product (still showing a good superficial hardness) and remarkable anti-scratch features; this is generally used mainly for the manufacture of gutters, rain collectors or coverages.

The second version is studied specifically for the production of coverages characterized by a "false roof tile" aspect or anyhow with a 0 gloss tendency; the prepainted product can be compared to the Marcegaglia MP3 system, with a foreseen average duration of at least 10 years*.

Physical characteristics

Cold rolled steel, depending on the final quality required by customer, is subject to hot dip galvanizing as per euro-norm and, in order to achieve the highest guarantee over the life of finished products, the zinc coverage shall never be lower than 140 gr/m².

The painting cycle foresees a non-chrome treatment of nitro-cobalt salts and a passivation of zirconium salts of the galvanized steel: this set of treatments will support the application of 5 µm of primer and 20 µm of paint to form a total dry layer of nominal 25 µm of organic protection.

The lower side presents the application of 5/7 µm of foamable backcoat or, against a specific request of the customer, of the same painting cycle used on the upper side.

The MP4 system allows for a higher colour reproduction, despite the environmental standards of Marcegaglia impose the use of non-toxic paints only, to be made without toxic pigments, as for example chromates, molybdates and lead salts.

Chemical and quality characteristics

Salt spray resistance (EN 13523-8)	The test is performed with reference and according to euro-norm and does not allow for blisters on the cross more than 2 mm per edge (total 4 mm) and, on the surface, more than the degree 8 from the ASTM D714 scale after 500 hours exposure
T-bend test (EN 13523-7)	The test determines the adhesion of the paint to the steel which must not exceed 1,0 t, and it is performed by tearing with adhesive ribbon the bending itself and the elasticity of the paint that must not crack over 2,0 t
Specular gloss (EN 13523-2)	As per sample
Pencil hardness (EN 13523-4)	It is measured by engraving the paint at 45° with Koh-I-Noor pencils and must not be any lower than grade F
Resistance to solvents (EN 13523-11)	After 100 double rubbing with cotton pad, soaked in MEK (metil-etil-chetone) and pressure of about 1 kg, the paint must not show any discrepancy nor defect

(*) Provided both parties have reached an agreement and in presence of our evaluation of the installation site.