

MARYLAND METRICS

P.O.Box 261 Owings Mills, MD 21117 USA

(410)358-3130 (800)638-1830 Faxes: (410)358-3142 (800)872-9329

<http://mdmetric.com>

techinfo@mdmetric.com

TECHNICAL INFORMATION and DATA

Electroplated coatings

Electro zinc plating and chromating is the most frequently required coating, since it has proven to be excellent with respect to corrosion resistance and appearance (this process is also called "galvanizing (European terminology only - however in North America, it should not be confused with hot dip galvanizing)" or "promatizing", corresponding to zinc-blue-chromated process group B). In vehicle constructions and piping, zinc-plated, yellow-dichromated fasteners are being used more and more because of their higher resistance to corrosion. We keep an extensive range of zinc plated products on stock. Unplated parts that are in stock can normally be electroplated within 1 - 2 weeks.

Coating metal/alloy

Designation symbol	Elements	Symbol
A	Zinc	Zn
B	Cadmium ²⁾	Cd
C	Copper	Cu
D	Brass	CuZn
E	Nickel	Ni
F	Nickel-chromium ¹⁾	NiCr
G	Copper-nickel	CuNi
H	Copper-nickel-chromium ¹⁾	CuNiCr
J	Tin	Sn
K	Copper-tin (Bronze)	CuSn
L	Silver	Ag
N	Copper-silver	CuAg
P	Zinc-nickel	ZnNi
Q	Zinc-cobalt	ZnCo
R	Zinc-iron	ZnFe

¹⁾ Thickness of chromium approximately 0,3 μm

²⁾ Use of cadmium is restricted or prohibited in certain countries

Chromate treatment and corrosion protection performance

Chromate treatment group		Typical color	Corrosion resistance				
			Increase of corrosion resistance in neutral salt spray test	First appearance of red rust in neutral saltspray test in hours (depending on coating thickness)			
				3 μm	5 μm	8 μm	12 μm
Note: galvanizing as referred to here means zinc plating , not hot dip galvanizing.							
-	galvanized only	metallic, silver	100%	-	-	-	-
A	galvanized and clear chromated	metallic, silver	200%	12	24	48	72
B	galvanized and transparent chromated	bright, bluish to bluish iridescent	200%	12	36	72	96
C	galvanized and yellow chromated	yellowish gleaming to yellow-brown, iridescent	350%	24	72	120	144
D	galvanized and olive-drab chromated	olive-drab to olive brown	450%	24	96	144	168
F	galvanized and black	brown-black to black	200%	-	36	72	96