

CADMIUM PLATE

Apticote 900 is an electrolytic process that can deposit protective cadmium coatings on to a variety of base materials to produce a degree of corrosion protection unmatched by other sacrificial coating systems. It out-performs coatings based on zinc or aluminium in aggressive corrosion situations, including atmospheric, saline and alkaline conditions.

HOW IT WORKS

Cadmium provides corrosion protection by its unique 'sacrificial' action. When applied as a coating on steels or other structural metals, it corrodes preferentially and the substrate remains undamaged, even if the coating is scratched. Normally, the cadmium coating is applied with a thickness between 5 and 25µm and its own corrosion rate is less than one fiftieth of that of steel.

APPLICATIONS

Cadmium plating can be used in aeronautical, aerospace, mining, military & defence, offshore and nuclear applications. Cadmium can also be used on safety devices in road vehicles, agricultural vehicles, rolling stock & vessels. The use of cadmium on electrical contacts in any sector of use is also not restricted.

KEY FEATURES & BENEFITS

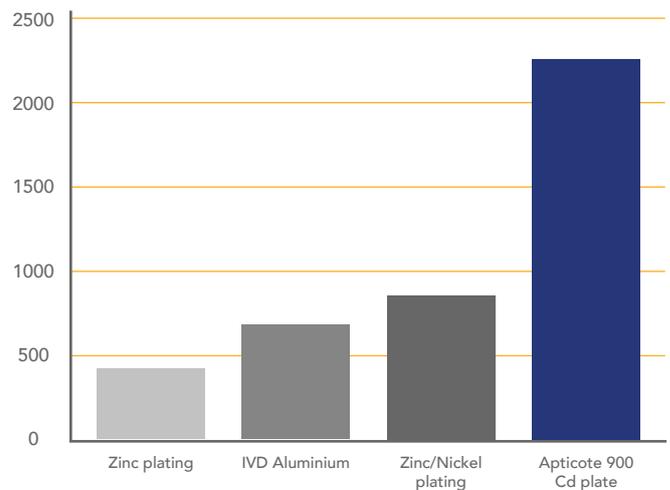
Primary features & benefits include:

- Superb corrosion protection (>2,000 hours salt spray)
- Low friction (0.15 vs steel)
- Ductile, self-healing
- Small volume growth when oxidising, lower than zinc or aluminium coatings
- No final grinding - smooth, aesthetically pleasing surface as plated
- Can be chromate passivated for enhanced corrosion protection
- Zero effluent processing
- Prolonged corrosion protection to key components
- Prevents galvanic corrosion between steel fasteners and aluminium
- Reduces tightening torque of fasteners and allows repeat dismantling
- Prevents jamming of fasteners or delicate mechanisms
- Accommodates manufacturing tolerances without finishing
- Helps guarantee safety of highly stressed parts

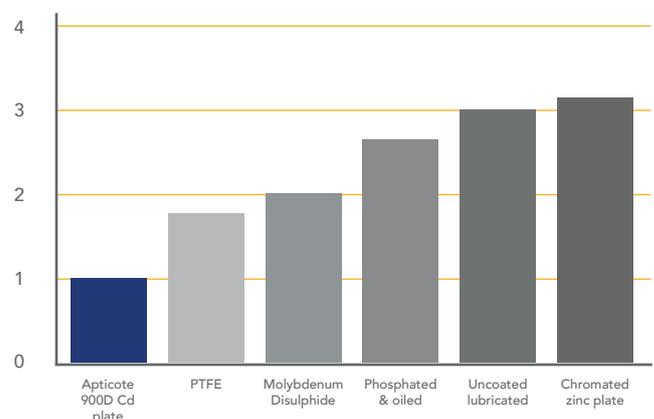
CHROMATE PASSIVATION

After electroplating and heat-treatment (if required), a chromate conversion coating is usually applied, giving the coating its well known iridescent green/brown appearance. Such a treatment can double the corrosion resistance. A thin conversion coating can maintain a bright as-plated finish and does not appreciably affect the electrical conductivity of the surface, nor its solderability. A clear lacquer coating can provide additional protection.

SALT SPRAY ENDURANCE IN HOURS



RELATIVE FASTENING TORQUE - HIGH TENSILE BOLTS



Disclaimer

The information contained in this leaflet is intended for guidance. Whilst every effort is made to understand the environment in which the coating is designed to work, success can only be determined by trials and in-service testing.