



# CORROSION PROTECTION

**ROCKSIDE**  
EXPORT LIMITED

Corrosion mainly affects the durability of fasteners, (i.e. their lasting strength, appearance and ease of dismantling) may be caused by exposure to a particular environment during service. Depending upon the environmental condition one of the following coating or finish is recommended to enhance the life of fasteners.

## USE OF CORROSION PROTECTION COATINGS OR FINISHES

Finish	Specification	Typical application
Zinc Plating	BS 3382 Part 2	Usually bright finish on steel screws. Used for short term protection of all steel fasteners. Satisfactory for standard threads.
	BS 1706	For all parts requiring heavy coatings up to 38.1 microns deposit thickness.
Cadmium Plating	BS 3382 Part 1	Usually semi-bright finish on steel screws. Satisfactory for standard threads.
	BS 1706	For all parts requiring heavier coatings up to 10.6 microns cadmium.
Nickel and nickel plus chromium Plating	BS 3382 Part 3 and 4	On to steel and copper alloy screws. Satisfactory short term protection and bright finish on standard threads.
	BS 1224 : 1965	For all parts requiring protective and decorative finish. Different grades provide for long term interior and outdoor performance.
Hot dip zinc (galvanising)	BS 729 Part 1	Heavy zinc deposits 38.1-76.2 microns on steel for long term outdoor protection. Uneven coating unsuitable for many small threaded parts.
Diffusion zinc coating (sheradizing)	BS 729 Part 2	Dull grey protective finish equivalent to approximately 25.4 microns zinc. Fairly even finish on threads. Develops rusty colour on initial weathering.
Phosphate coating	BS 3189	Dark, almost black, finish suitable for short term protection of all steel threaded parts. Coating must be sealed with oil, wax or lacquer to be effective.
Chromate passivation (for zinc and cadmium coatings)	Included in BS 3382 Part 1 and 2	Provides an improvement on the performance of normal zinc and cadmium finishes, usually green-brown in colour.
Anodising (for aluminium alloys)	BS 1615	Provides additional corrosion protection for aluminium, but the coating must be sealed with oil or lanolin to prevent screw thread seizure.

### CHOICE OF COATING

The choice of which coating to use must be made in relation to the environment, the service life required, the type of fastener and the acceptable cost.

