

HARD CHROME PLATING

Apticote 100 is a low temperature electrolytic plating process that deposits a protective coating of hard chrome on to a variety of base materials, to produce a hard wearing, low friction surface.

It out-performs conventional hard chrome plate when combating wear, corrosion and friction, and it can be applied to a precise thickness by the use of Poeton's unique **Precision Chrome Plating** processing method, resulting in a harder coating. In many instances this eliminates the need for final grinding, a step that can reduce hardness and substrate adhesion. This in turn leads to shorter production times and the elimination of grinding reject losses.

Process control is crucial. By maintaining optimum bath chemistry and managing the current density, the pitting and softening that plague so many hard chrome platers is avoided, defects that would reduce wear resistance, encourage pitting corrosion and impair grinding.

KEY FEATURES

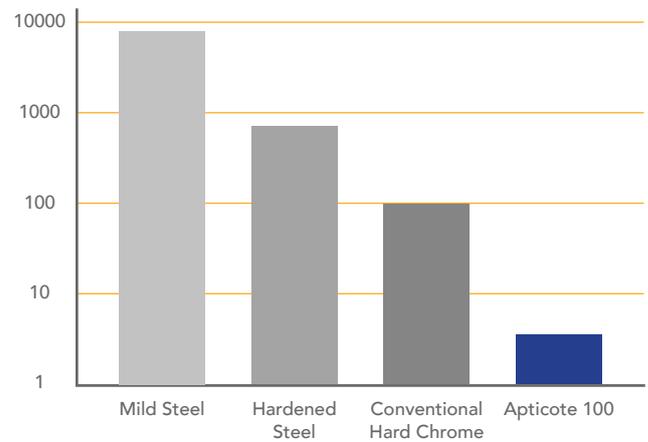
- Extreme hardness (1,000 Hv)
- Low coefficient of friction (0.05 oiled)
- Excellent abrasion resistance
- Precision plating (75 microns)
- No final grinding
- Corrosion resistance
- Low adhesive wear

WHY IS APTICOTE 100 THE BEST HARD CHROME PLATING?

- PC-controlled power supplies – fully programmable
- Accurately controlled electrolyte chemistry and bath temperature
- Bespoke anode design
- Specialist tooling, minimising edge build-up and allowing 'precision' plating
- Monitored and controlled iron and trivalent chrome build-up
- Professional laboratory backup
- Highly trained and skilled operators
- Rigorous environmental controls

ADHESIVE WEAR FACTOR

HARD STEEL BALL vs DISC TEST



EXCELLENT ADHESIVE WEAR RESISTANCE

Apticote 100 gives ultra high metal-to-metal sliding wear resistance – 200 times less wear than given by through-hardened, induction-hardened, carburised or nitrided steels, and five times better than conventional hard chrome plate.

HIGH ABRASION RESISTANCE

Apticote 100 gives superb abrasion resistance, even under high contact stresses, providing a very low wear rate. It is many times better than that of ordinary hard chrome, hardened steel or electroless nickel in abrasive applications like textiles, paper and food products. It responds superbly to honing and, with a fine crack network, its ability to hold a lubricant and prevent scuffing is excellent.

LOW FRICTION

Apticote 100 produces very low friction against polymers, carbons and graphite, making it ideal for textile applications or for seal faces. It also gives low friction against hardened steels, bronzes and other surface-treated counterfaces (e.g. nitrided steel), making it a perfect coating for a shaft in a journal bearing, both lubricated or dry.

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.