



# Modern Plating Corporation

## Zinc Alloy Finishes

Modern Plating is a certified ZinKlad 500 zinc-iron & ZinKlad 1000 zinc-nickel applicator!

### Zinc-Nickel ♦ Zinc-Iron ♦ Tin-Zinc

Modern Plating specializes in the application of high performance zinc-alloy finishes. These alloy finishes provide superior corrosion protection and offer an environmentally friendly alternative to cadmium due to the toxicity of cadmium and the cyanide used in the cadmium plating process. The demand for higher quality, longer lasting, more corrosion resistant coatings in industries such as automotive and electrical components has driven the development of these finishes.

Modern currently offers all of the alloy finishes with either a clear and/or a black trivalent finish. Hexavalent chromates are being eliminated by the automotive industry due to the carcinogenic nature of Chrome VI and are being replaced by trivalent chromates.



#### ZinKlad 1000

**Zinc-Nickel** – Zinc-nickel offers the greatest corrosion resistance of all the alloy finishes. It is often used as a substitute for cadmium although it does not offer the lubricity of cadmium nor its cosmetic appearance. It does offer high resistance to heat and UV light and does not promote galvanic corrosion when in contact with aluminum. It is considered a hard finish with good resistance to abrasion.



#### ZinKlad 500

**Zinc-Iron** – Zinc-iron offers good weldability and ductility making it a good choice for components that will undergo subsequent manufacturing operations. It is often used on parts that are to be painted. It is the least expensive.

**Zinc-iron** clear offers a good cosmetic appearance.

**Zinc-iron** is most suitable for black chromate.



**Tin-Zinc** – Tin-zinc is the newest of the alloys. It offers excellent corrosion protection. It is often used as a replacement for cadmium due to its excellent conductivity and lubricity. It offers excellent solderability and superior ductility. It is rapidly gaining in popularity particularly in the automotive industry and is very often used in grounding applications. It is a non-cosmetic finish.

#### Modern Plating Corporation

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