

## **AERICOTE® 1000**

### PRODUCT DESCRIPTION

Aericote® 1000 is a high performance zinc-rich coating for ET&F pins which offers several major advantages for these high strength fasteners when compared to electroplated zinc. The coating is chromium-free, and provides superior corrosion resistance with a thin film, without risk of hydrogen embrittlement.

Aericote® 1000, like paint, is applied to ET&F pins by immersion, using conventional dip spin coating processes. In contrast, the process of zinc electroplating produces hydrogen as a byproduct. Some of this hydrogen can be trapped beneath the plated layer and cannot escape. For hardened parts like pins, the electroplating process can cause hydrogen embrittlement of the steel substrate, leading to delayed fracture of the pins after installation. Because of this, high hardness parts must be baked to relieve the entrapped hydrogen but baking does not guarantee the parts are free from embrittlement. The Aericote® 1000 process is free from the risk of hydrogen embrittlement, eliminating the potential delayed failure of the fasteners.

### CORROSION PROTECTION

Aericote® 1000 provides corrosion resistance superior to conventional treatments and offers sacrificial protection of the steel pin. The coating is further enhanced by a self-repairing mechanism. If the coated pin is abraded during installation, zinc oxides and carbonates form at a controlled rate at the damaged area, sealing the breach in the coating, and thus restoring barrier protection. Fasteners coated with Aericote® 1000 meet or exceed 1000 hours of 5% salt spray testing per ASTM-B-117.