Alkaline Zinc

Alkaline Zinc vs. Acid Zinc

Alkaline Zinc
Improved Corrosion Protection (NSST)

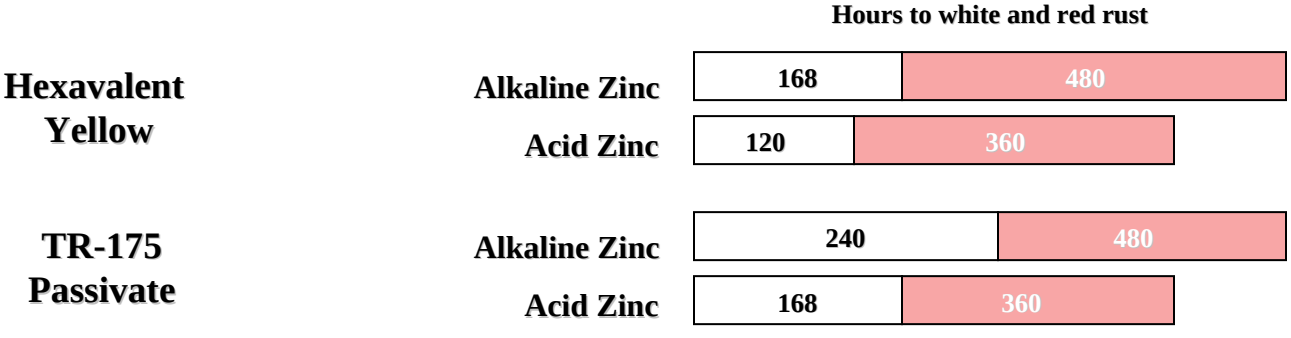
Hexavalent Yellow

	0 hours	120 hours	168 hours	360 hours	480 hours
Alkaline Zinc					
Acid Zinc					

TR-175 Passivate

	0 hours	168 hours	240 hours	360 hours	480 hours
Alkaline Zinc					
Acid Zinc					

Thickness for above NSST study – 8 microns (0.0003")



Alkaline Zinc
Plate Distribution and Throwing Power

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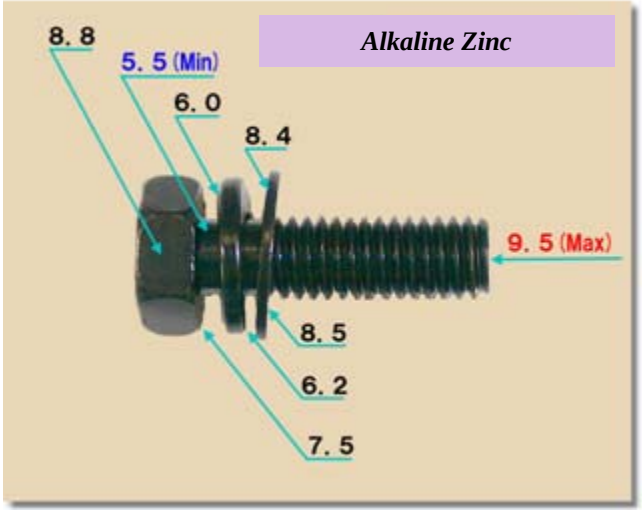
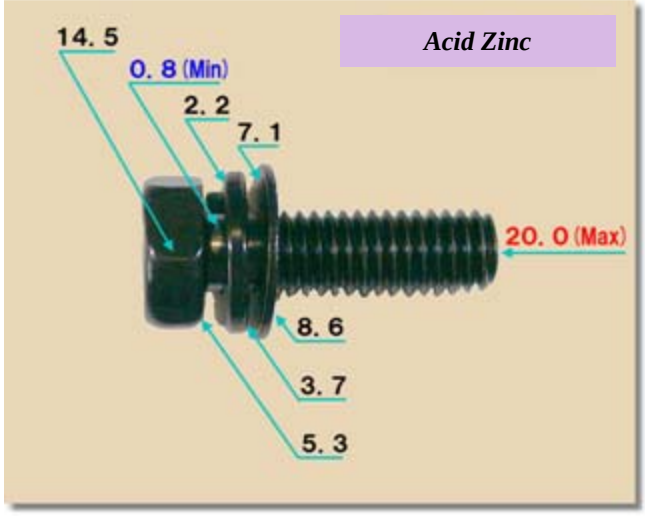
800-508-1512

Improved Plate Distribution

When compared to acid zinc plating, the Alkaline Zinc system provides excellent plate distribution between the high and low current density areas without sacrificing thickness in the lows





Excellent Throwing Power

Alkaline Zinc provides significantly better coverage in extremely low current density areas as shown by this cross-section view of the inside of a plated pipe.

Alkaline Zinc

Acid Zinc

Alkaline Zinc
Improved Impact Resistance & Plating Hard to Plate Fittings

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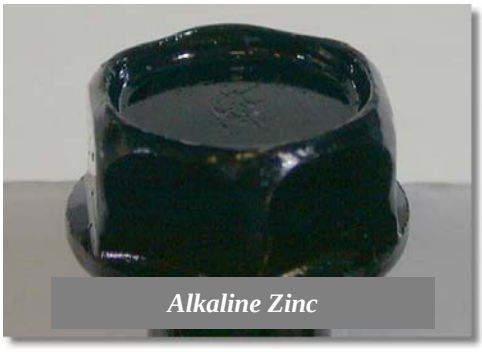
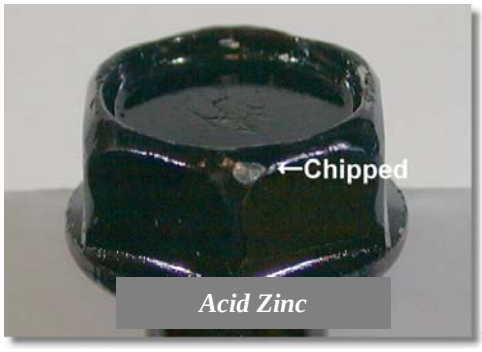
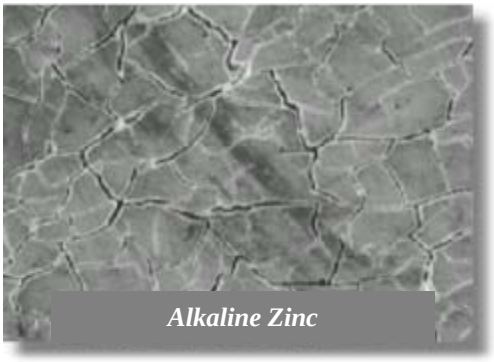
Improved Impact Resistance

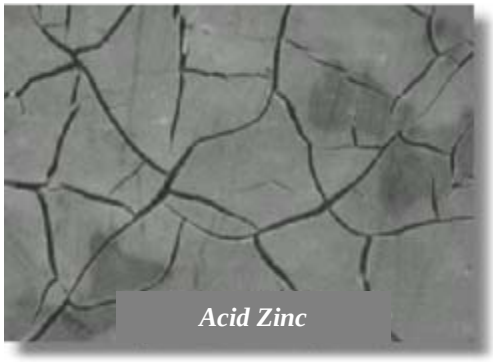
Alkaline Zinc plate is more impact resistant than Acid Zinc plate. The DuPont impact test was performed on these bolts. Notice the chipped plate visible to the naked eye on the Acid zinc bolt and the cracks evident on the magnified picture (x150).


Alkaline Zinc



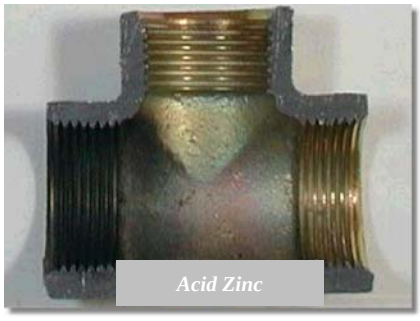
Acid Zinc


Alkaline Zinc


Acid Zinc

Good Brightness, Throwing Power and Plate Distribution – Inside Fittings


Alkaline Zinc


Acid Zinc

Alkaline Zinc
Reduction of Operating Costs

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The differences in bath constituents make the initial bath make-up, maintenance, and waste treatment less costly with Alkaline Zinc when compared to Acid Zinc.

Alkaline Zinc	Acid Zinc
Zinc Metal – 10 g/l (1.5 opg) Sodium Hydroxide – 131 g/l (17.5 opg)	Zinc Metal – 34 g/l (4.5 opg) Potassium Chloride – 105 g/l (14 opg) Ammonium Chloride – 26 g/l (3.5 opg)

Dragged out Alkaline Zinc solution contains almost 70% less zinc than Acid Zinc solution. Less zinc in the waste stream means less waste treatment cost.

There is no need to over-plate the high current density areas in order to achieve minimum thicknesses in the low current density areas when processing parts in Alkaline Zinc. The raw material cost of the zinc metal that is "wasted" by providing greater thickness than the customer requires can be staggering.

With Alkaline Zinc plating solution, there is no "metal growth" as is common with Acid Zinc solution. Therefore, there is no need for down time for bath "cuts" and the waste treatment cost to treat the solution that was decanted.