

# ZinKlad™ 750

Hexavalent Chromium-free coatings



## ZinKlad 750 – Unrivalled Conductivity

**ZinKlad 750** is the coating for electrical grounding applications. It passes stringent automotive cyclic corrosion testing and 1,000 hours of neutral salt spray while still being able to perform its electrical grounding functionality.

**ZinKlad 750** passes the GMW3200 conductivity test for fastener grounding applications and meets the hydrogen embrittlement requirements of GMW4700.

**ZinKlad 750** utilizes a unique 'double-top coat' to provide both exceptional corrosion resistance and a consistent coefficient of friction. On fasteners the coating retains its finish over extended periods of time without the presence of excessive white or red corrosion products, thus maintaining metal to metal contact.

As the number of electrical components continues to grow in a vehicle, the importance of maintaining conductivity is critical for fasteners used in grounding applications. To meet these demands, **ZinKlad 750** delivers unrivalled conductivity.



## KEY FEATURES

- Exceptional corrosion resistance
- Low electrical resistance which ensures good conductivity
- Reduced formation of corrosion products to maintain conductivity
- Low coefficient of friction to prevent galling during fastener assembly



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## ZinKlad 750 Performance Data

**ZinKlad 750** combines a homogenous metallic tin-zinc deposit (25 – 30% zinc) of some 8 microns minimum thickness, with a trivalent chromium passivate. A clear topcoat is applied to further increase corrosion resistance and modify the torque-tension characteristics.

The tin-zinc deposits are applied from the **Enviralloy SN** alkaline electroplating process. This provides an even semi-bright deposit with an excellent uniform alloy distribution.

This metallic coating is further protected against the formation of white corrosion products by the application of **TriPass ELV 3200** trivalent passivate and a unique 'double' topcoat layer, **HydroKlad SI** and **Torque'N'Tension 18**. Combined these provide increased corrosion resistance and modify surface properties to ensure uniform torque and clamping characteristics.

Collectively these ensure that **ZinKlad 750** consistently meets the performance demands for grounding conductivity, corrosion resistance and torque modification:

- 336 cycles, cathodic testing to GMW3200 / GMW3286 Neutral Salt Spray.
- GMW 14872 cyclic corrosion test, exhibiting both excellent white corrosion resistance and no red rust after 23 cycles.
- In neutral salt spray testing the coating shows reduced formation to voluminous white zinc corrosion products and resists more than 1,000 hours until the first formation of red rust.
- Coefficient of friction of 0.13 +/- 0.03 when tested to ISO 16047.

## Recommended Processes Used to Create **ZinKlad 750** coating

<b>Tin-zinc</b>	<b>Provides the sacrificial protection</b>
Enviralloy SN	Alkaline, excellent alloy and deposit distribution
<b>Trivalent Passivates</b>	<b>Protects the zinc deposit from white rust</b>
TriPass ELV 3200	Silver color with excellent corrosion resistance
<b>'Double Top coat'</b>	<b>Improves corrosion resistance and modifies friction properties</b>
1) HydroKlad SI	Excellent corrosion resistance, very thin film
2) Torque 'N' Tension 18	Average coefficient of friction* 0.13, range 0.10 – 0.16

\*In this combination for ZinKlad 750



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