

ZinKlad® 1000

Hexavalent chromium-free coatings



The toughest high performance coating

ZinKlad 1000 is the high performance coating for automotive applications. Hexavalent chromium-free with a deposit hardness above 500 HVN it is extensively used for brake callipers, fasteners (including exterior and self-thread cutting) and fluid transfer tubes. Production proven for over 10 years, it delivers exceptional corrosion resistance coupled with consistent performance.

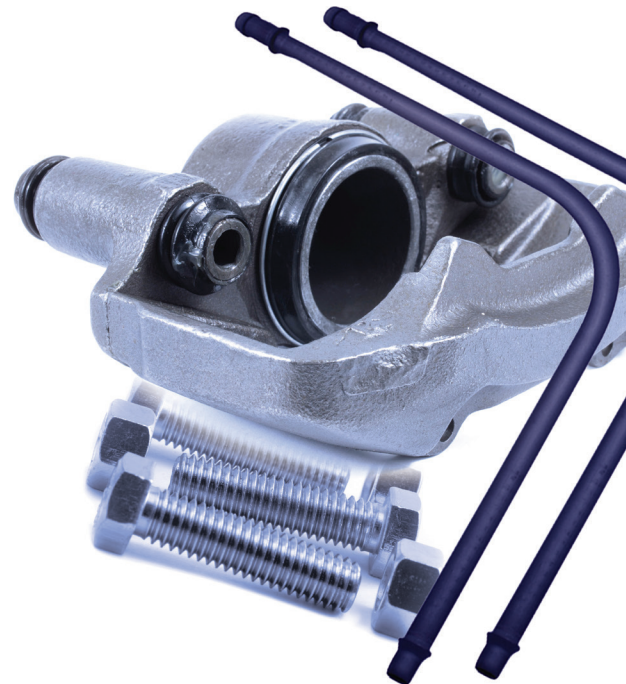
ZinKlad 1000 is specified by global automotive manufacturers including Chrysler-FIAT, Ford, GM, PSA, Renault and VW-Audi. Today there are more than 25 application lines around the world producing **ZinKlad 1000** every day.

ZinKlad 1000 coupled with the appropriate **Torque'N'Tension** control fluid provides exceptional corrosion resistance and a consistent coefficient of friction. On brake callipers the coating retains its finish over extended periods of time, critical when the casting is visible through alloy wheel spokes. For fluid transfer tubes, corrosion resistance is maintained, even after post-plate deformation.

When it comes to providing outstanding corrosion protection that automotive engineers rely on, **ZinKlad 1000** delivers.

KEY FEATURES

- Exceptional corrosion protection for the plated substrate
- Resistant to white corrosion products
- Low coating thicknesses
- Extensively specified
- Global availability



ZinKlad® 1000

Hexavalent chromium-free coatings



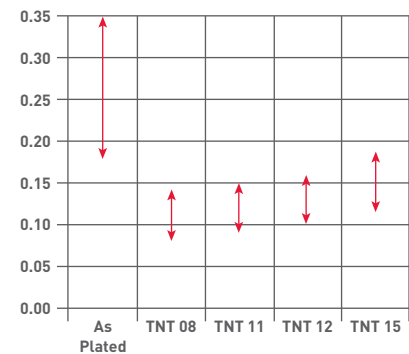
ZinKlad 1000 performance data

ZinKlad 1000 combines an homogenous metallic zinc-nickel deposit of 8 microns minimum thickness. This hard metallic coating is further protected against the formation of white corrosion products by the application of trivalent passivate with an option of a specialist topcoat layer. **TriPass ELV** trivalent chromium passivates impart a blue/silver or iridescent color. **HydroKlad SI** and **Torque 'N' Tension** topcoats provide increased corrosion resistance.

Torque 'N' Tension fluids modify surface properties to ensure uniform torque and clamping characteristics. Combined these ensure that **ZinKlad 1000** consistently meets minimum performance demands for corrosion resistance and torque modification.

Corrosion performance (ASTM B-117)		
	First white corrosion	First red corrosion
ZinKlad 1000	240 h	1000 h

MacDermid Enthone friction control on zinc-nickel electroplate



Recommended processes used to create ZinKlad 1000 coatings

Zinc-Nickel	Provides the sacrificial protection
Enviralloy Ni 12-15	Alkaline, particularly recommended for plating fasteners
Enviralloy Ni 12-15 G2	Alkaline, Next generation of Enviralloy Ni technology, recommended for plating fasteners
Enviralloy NiSpeed	Alkaline, fast plating rates for rack and barrel applications
Trivalent Passivates	Protects the zinc deposit from white rust
TriPass ELV 3000	Intense blue color with excellent corrosion resistance
TriPass ELV 3000 G	Cobalt free formulation, blue to iridescent color
TriPass ELV 2000	Blue to iridescent color with excellent corrosion resistance
TriPass ELV 7500	Cobalt free formulation, blue to iridescent color
Topcoat	Improves corrosion resistance and modifies friction properties
Torque 'N' Tension 08	Average CoF 0.11, recommended for self-cutting screws
Torque 'N' Tension 11, 12,15	Average CoF 0.11, 0.12, 0.15 for fasteners
HydroKlad SI	Recommended for fluid transfer tubes and brake callipers



For more information, please contact us at:
Email: ISenquiries@macdermidenthone.com
macdermidenthone.com/industrial
 © 2019 MacDermid Enthone