

ZinKlad™ MG / MGL

Hexavalent Chromium-Free Coatings



Minimizing Galvanic Corrosion

ZinKlad MG / MGL finishes are specifically designed to prevent galvanic 'contact' corrosion between dissimilar metals such as steel and aluminum / magnesium. Specified by VW-Audi and Chrysler **ZinKlad MG / MGL** has been in production for over 10 years, helping designers create corrosion resistant, robust joints on lighter weight vehicles.

ZinKlad MG / MGL can be applied to all steel components requiring sacrificial protection. It is recommended when a zinc only deposit with improved corrosion protection is required. Typical applications are for ferrous fasteners used to join lightweight metals. Threaded components would use **ZinKlad MGL**, whereas non-threaded **ZinKlad MG** is recommended.

When it comes to providing jointing solutions for dissimilar metals, **ZinKlad MG / MGL** is production proven.

KEY FEATURES

- Reduces Galvanic Corrosion Issues
- Excellent Corrosion Resistance
- Production Proven for More than 10 Years
- Consistent Performance
- Global Availability



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ZinKlad MG / MGL combines an homogenous metallic zinc deposit of 12 - 30 microns thickness, with a TriPass trivalent chromium passivate.

Following the zinc and passivate coating, automotive engineers specify either:

- **ZinKlad MGL** with **Torque'n' Tension 11** topcoat to provide increased corrosion resistance and modify surface properties to ensure uniform torque and clamping characteristics (coefficient of friction 0.09 – 0.13).
- **ZinKlad MG** with **HydroKlad 20** topcoat to provide increased corrosion resistance on larger / non-threaded components.

Whichever finish is chosen, **ZinKlad MG / MGL** is proven to consistently:

- Reduce galvanic / contact corrosion when joining dissimilar metals
- Provide the minimum performance demands for corrosion
- Provide torque-tension modification (where required)

Corrosion Performance (ASTM B-117)		
	First White Corrosion	First Red Corrosion
ZinKlad MG/MGL	192 h	600 h

Recommended Processes Used To Create ZinKlad MG / MGL Coatings

Zinc	Provides the sacrificial protection
Envirozin	Alkaline, exceptional deposit distribution
Kenlevel	Acid, brightest deposits and fast plating speeds
Trivalent Passivates	Protects the zinc deposit from white rust
TriPass ELV 1000	Excellent corrosion resistance high build passivate
TriPass ELV 1500LT	Excellent corrosion resistance high build passivate, low temperature application
TriPass ELV 2500LT	Excellent corrosion resistance high build passivate, low temperature application
Topcoat	Improves corrosion resistance and modifies friction properties
Torque 'N' Tension 11	Average CoF 0.11, range 0.09 – 0.13 for threaded fasteners
HydroKlad 20	Recommended for non-threaded components



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