

Making our world more productive



EXO GARD™

Advanced High-Velocity Coating Solutions



EXOGARD™ coatings are dense, thin, and smooth. These expand our portfolio for hard chrome replacement and several coatings, exceeding the properties of our HVOF coatings.

EXOGARD™ Coating Solutions

Coatings made by the EXOGARD™ process are dense, thin, smooth, and designed to provide corrosion and wear protection in all industries. These coatings are also REACH-compliant, environmentally-friendly, and can be used to replace hard chrome plating.

The EXOGARD process generated four coating families: EXOGREEN™, EXOPRO™, EXOSHIELD™, and EXOFILM™. Details of these coating families and their uses are below:

EXOGREEN™

EXOGREEN™ coatings are **thin, environmentally compliant** and provide an **economical solution** that **performs equally** to hard chrome plating.

EXOPRO™

EXOPRO™ coatings are **cost-competitive** as compared to traditional HVOF and HVAF coatings, **environmentally compliant** as an **alternative to hard chrome**, perform better than hard chrome, and are **tougher** than standard HVOF and HVAF coatings.

EXOSHIELD™

EXOSHIELD™ coatings are **fully dense, hard and tough**, providing best-in-class **corrosion and wear protection** with **exceptional finishability** to less than 0,025 µm/1.0 µin Ra values.

EXOFILM™

EXOFILM™ coatings are an **ultra-thin** solution for **textured surfaces**. They are **environmentally compliant** as an alternative to hard chrome plating.

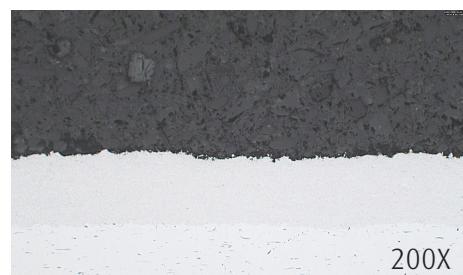


EXOGARD™ Typical Coating Properties and Performance

Coating Porosity	< 0.5 %
Microhardness	HV 1100 minimum
Surface Finish Achievability	< 1 µin Ra, < 0,025 µm Ra
Sand Abrasion Test – ASTM G65	1 mm ³ /rev
Salt Spray Test – ASTM B-117	Passed 1000 hrs @ 0.002"/0.05 mm thickness



EXOGARD™ coating: super finished (right), as coated (left)



EXOSHIELD™ coating cross-section showing dense microstructure

Linde Advanced Material Technologies Inc.
1500 Polco Street, Indianapolis, IN 46222
Phone +1 317 240 2500, www.linde-amt.com