

oerlikon
balzers

Your safe haven.

BALINIT coatings for reliable engine valves, valve plates, valve seats and piston rings for diesel- and LNG-engines.



General Engineering



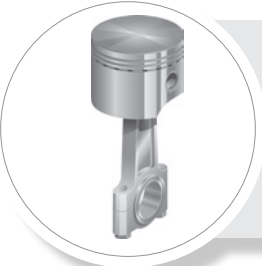
BALINIT coatings improve efficiency and reduce emissions.

Ship engines have to be more and more efficient to reduce emissions at sea but also in harbours. Higher engine temperatures and pressures lead to increased stress and tribological demands on critical components such as: valves, valve plates, piston pins and piston rings. BALINIT® coatings have superior hardness and friction properties compared to classic coatings like electroplated chromium and therefore reduce wear and friction.

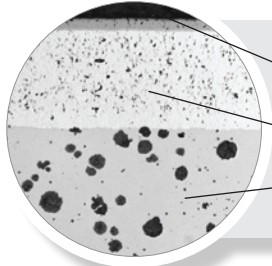
Now benefit from less wear, less hydrocarbon buildup and higher wear resistance:



BALINIT® FUTURA NANO prevents hydrocarbon buildup on valves.



BALINIT® CNI (CrN) significantly improves the wear resistance of the hard chromium base layer. The PVD coating is 40 µm thick.



PVD CrN
Hard chrome
Cast iron piston ring

Your advantages with BALINIT coated engine components:

- Higher wear resistance due to higher hardness
- Enabling higher engine pressures
- Less frictional losses and therefore less emissions

We recommend: BALINIT coatings for more engine power.

Coating	Coating material	Micro-hardness (HV 0.05)	Typical thickness	Coefficient of friction μ against steel (dry)	Colour
BALINIT® DLC	a-c:H	2500	2-4 µm	0.1 - 0.2	Black-grey
BALINIT® FUTURA NANO	TiAlN	3300	2-7 µm	0.5	Blue-grey
BALINIT® CNI	CrN	1700	5-40 µm	0.5	Grey

There's much more to talk about – please get in touch to discuss what we can do to improve your business.

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