

oerlikon
balzers

Long live your passion!

BALINIT[®] coatings extend the life of your classic or vintage car - with excellent wear protection and performance improvement.



The Oerlikon Balzers coating solution: It's more economical than you might think.

Historic motorsport and classic cars today are pushing the boundaries of classic vehicle engine and transmission capabilities. With Oerlikon Balzers' BALINIT® coatings, your vehicle can achieve greater performance by reducing frictional losses and reducing wear, thereby allowing a longer service life. As a well-known supplier to the motorsport and automotive industry for over 20 years, Oerlikon Balzers Coatings offer a surface-engineered solution for many critical components that now depend upon BALINIT® coatings. This is why the Sauber Formula 1 Team appreciates Oerlikon Balzers as an innovative partner. And, this Formula 1 technology is also ideal for your classic or vintage car.

Win longevity with wear protection and high performance.

BALINIT® coatings provide highly stressed components with excellent protection against wear and thus increase service life remarkably. But that's not all: BALINIT® coatings provide wear reduction, for example on valve train components, which increases the engine speed and makes your classic car even more powerful.

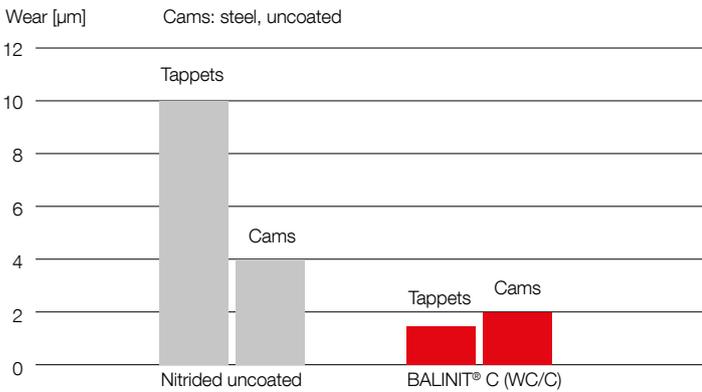
And there's another compelling advantage: BALINIT® coatings reduce the friction on the powertrain of your classic car, which enables enhanced load capacity and gives you that extra bit of performance.

Further applications include: ratio gears, layshafts, final drives, bearings, selector forks, followers, camshafts, rocker arms, rocker shafts, valves.



Trust in high performance.

Proven: Less wear with BALINIT® C (WC/C).



Auto engine test stand

Oil: without additives
Test period: 16 hours

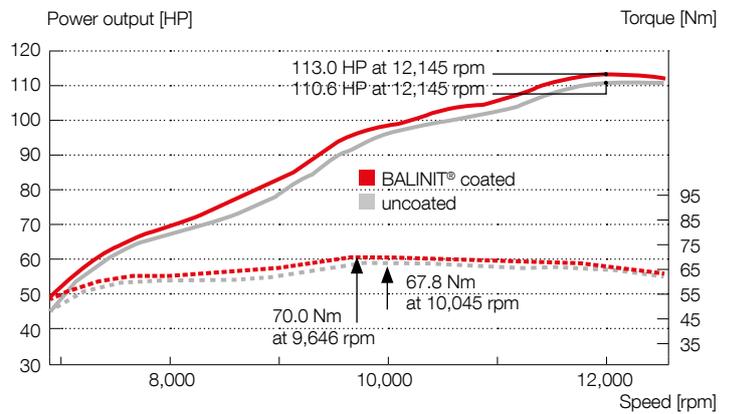
Scenario 1

Uncoated (nitrided)
High tappet and camshaft wear

Scenario 2

BALINIT® C (WC/C) coated tappets:
Reduced wear compared with nitrided tappets and reduced counterface wear.

Also in motorcycles: Friction reduction with BALINIT® DLC.



Motorcycle: Kawasaki Ninja

Parts coated:

Tappets: BALINIT® DLC
Wrist pins: BALINIT® C (WC/C)
Transmission: BALINIT® C (WC/C)

Power gain: 2.4 HP = 2.2 %
Increase in torque:
2.2 Nm = 3.3 % at lower speed

Remachining needless.

BALINIT® coatings are extremely thin and provide an excellent replication of contours. The edge sharpness and surface roughness of components remain virtually unchanged.



Choose high-class solutions: BALINIT® for engine and gear components.

For highly loaded engine and gear components, primarily BALINIT® C and BALINIT® DLC are used due to their unique combination of low friction and high hardness.

	BALINIT® C	BALINIT® DLC
Coating material	a-C:H:W Metal-containing carbon coating: Tungsten diamond-like carbon (WC/C)	a-C:H Metal-free carbon coating: Diamond-like carbon (DLC)
Typical microhardness (HK 0.01)*	1.000	> 2.000
Coefficient of friction against steel (dry)*	0.1 - 0.2	0.1 - 0.2
Typical coating thickness (µm)*	1 - 4	0.5 - 3
Maximum service temperature (°C)*	300	350
Coating colour	Anthracite	Black

* depending on application and test conditions

The best path for your passion.



approx. 1 week

There's much more to talk about – please get in touch to discuss what we can do to improve the longevity and performance of your vintage or classic car.

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