

oerlikon
balzers

P1 in Surface Solutions



Motorsports



Top-notch results: Oerlikon Balzers DLC coatings on motorsport parts



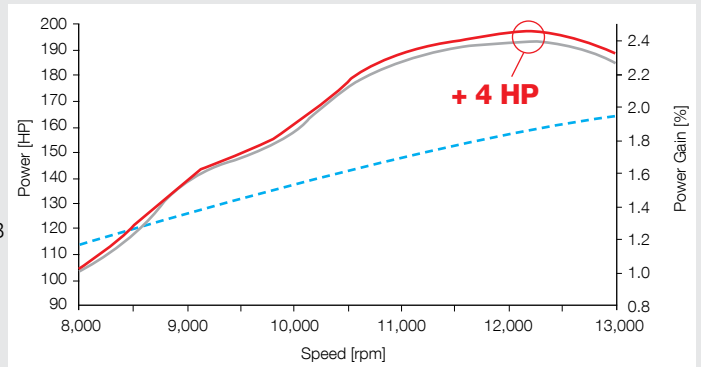
On pistons:

+ 4 HP

Uncoated piston

BALINIT® CAVIDUR B coated piston

Power increase



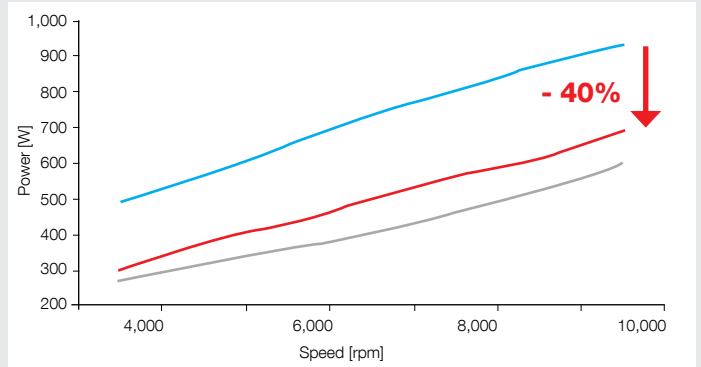
On camshafts:

- 40% friction

Camshaft and finger follower coated

Finger follower coated

Uncoated

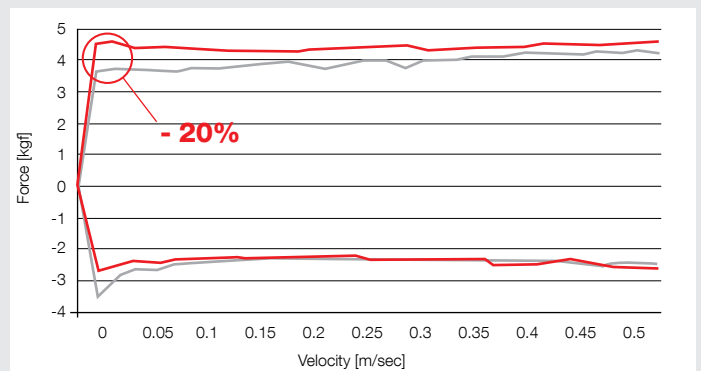


On suspension parts:

- 20% friction

Uncoated

BALINIT® CAVIDUR BA on suspension tubes

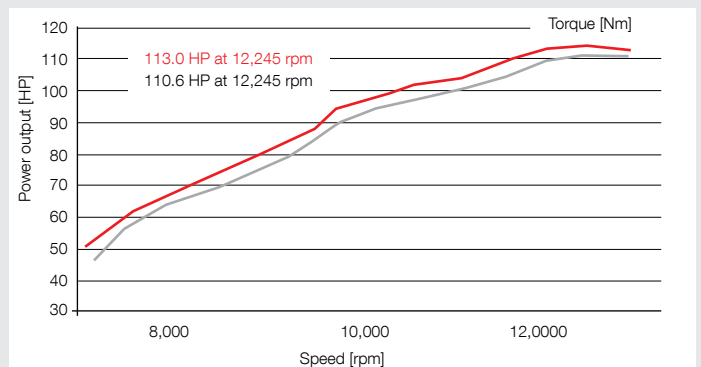


On gears:

+ 3 HP friction

Uncoated

BALINIT® C coated



These are the most important requirements that drive success:

Performance

Reliability

Global service

We provide performance enhancing surface solutions for:



Drive train

Your advantages:

- Use lubricants with lower viscosity
- Reduced wear if there is a lack of oil
- Reduced friction leads to efficiency gains
- Prevents micro pitting



Valve train

Your advantages:

- Reduced friction
- Reduced wear
- Increased performance
- Increased reliability
- Increased service life
- Enables lighter design



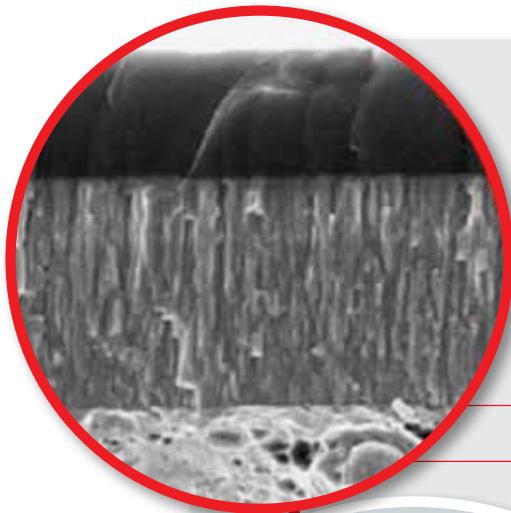
Chassis

Your advantages:

- Coating applied over the hard chromium
- Reduced seal wear
- Reduced leakage
- Improved drivability



More than just a coating ...



Working environment:
Evaluation of oil's influence on coatings

Coating: PVD & DLC coatings

Surface: Proper preparation

Substrate: Metallurgical recommendations



Counter part:
Proper surface preparation

Typical applications

Valve train

- Camshafts
- Finger followers
- Tappets
- Flat or roller lifters
- Valves
- Pistons
- Piston pins
- Piston rings
- Conrods
- Crankshafts

Drive train

- Gears
- Selector forks
- Shift rails
- Dog rings
- Pinions
- Shafts
- Front torsion bars
- Clutch shafts
- Splines

Chassis

- Suspension tubes
- Brake pistons
- Fasteners

Oerlikon Balzers – The perfect partner for highest demands

Oerlikon Balzers is one of the world's leading suppliers of surface technologies. Based on more than 20 years of experience in coating engine parts for the racing industry, Oerlikon Balzers provide performance coatings leading to less friction, less wear, more power and more reliability.

Marketed under the name BALINIT® and BALINIT® CAVIDUR, these solutions are designed to bring your performance and results to a new level.

Oerlikon Balzers operates a dynamically growing network of currently more than 100 coating centres in 34 countries throughout Europe, the Americas and Asia.

Along with Oerlikon Metco, Oerlikon Balzers is part of the Surface Solutions Segment of the Switzerland-based Oerlikon Group.



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