

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



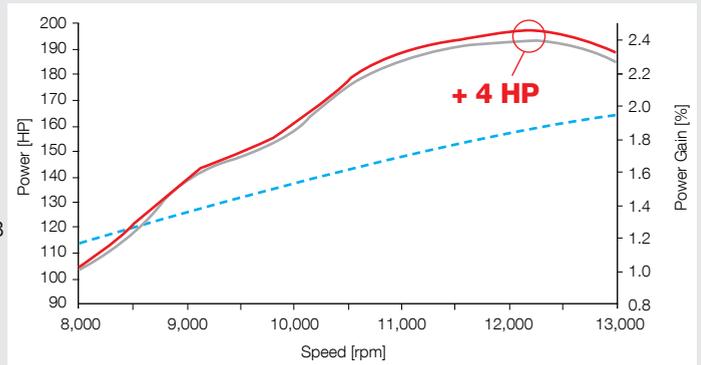
**On pistons:**

**+ 4 HP**

Uncoated piston

BALINIT® CAVIDUR B coated piston

Power increase



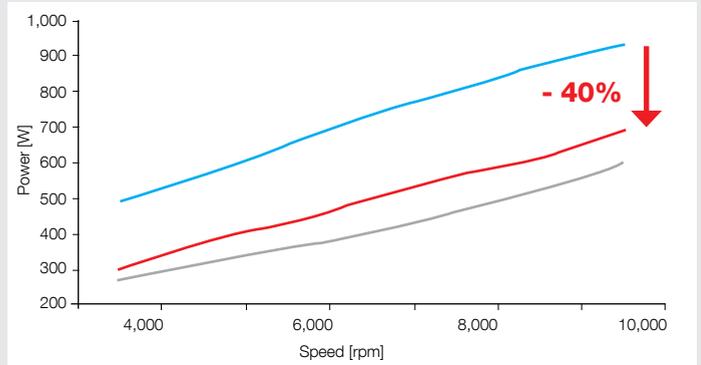
**On camshafts:**

**- 40% friction**

Camshaft and finger follower coated

Finger follower coated

Uncoated

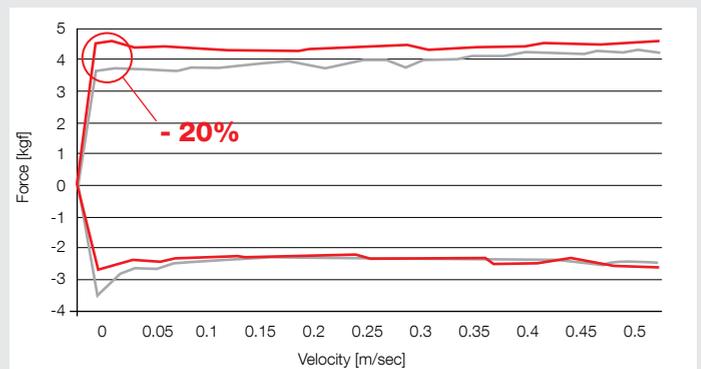


**On suspension parts:**

**- 20% friction**

Uncoated

BALINIT® CAVIDUR BA on suspension tubes

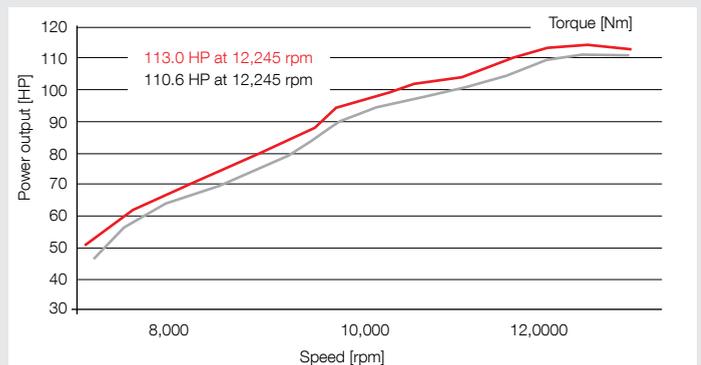


**On gears:**

**+ 3 HP friction**

Uncoated

BALINIT® C coated



# 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.



## Headquarters

Oerlikon Balzers Coating AG  
Balzers Technology & Service Centre  
Iramali 18  
9496 Balzers  
Liechtenstein  
T +423 388 7500

## Italy

Oerlikon Balzers Coating Italy S.p.A.  
Via Volturmo 37  
20861 Brugherio  
Italy  
T +39 039 289 901

## USA

Oerlikon Balzers Coating USA Inc.  
1475 E. Woodfield Road  
Suite 201  
Schaumburg, IL 60173  
United States  
T +1 847 619 5541

You can find a full listing  
of our locations at:

[www.oerlikon.com/balzers](http://www.oerlikon.com/balzers)

## France

Oerlikon Balzers Coating  
France SAS  
5 Allée Skylab  
Parc d'Ester – BP 6810  
87068 Limoges Cedex  
France  
T +33 555 3704 90

## Japan

Oerlikon Nihon Balzers Coating Co.,  
Ltd.  
7-2-2 Shinomiya  
Kanagaw Pref.  
Hiratsuka City 254-0014  
Japan  
T +81 463 54 2220

## India

Oerlikon Balzers Coating India Limited.  
Plot No. 109, KIADB Plot,  
Bommasandra, IV Phase Industrial  
Area  
Bangalore 560 099  
India  
T +91 80 7831791 / 7835102

## Germany

Oerlikon Balzers Coating  
Germany GmbH  
Am Ockenheimer Graben 41  
55411 Bingen  
Germany  
T +49 6721 793-0

## United Kingdom

Oerlikon Balzers Coating UK Ltd.  
Bradbourne Drive  
Tilbrook  
MK7 8AT Milton Keynes  
United Kingdom  
T +44 1908 377 277

**oerlikon**  
balzers

# P1 in Surface Solutions



Motorsports



**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:

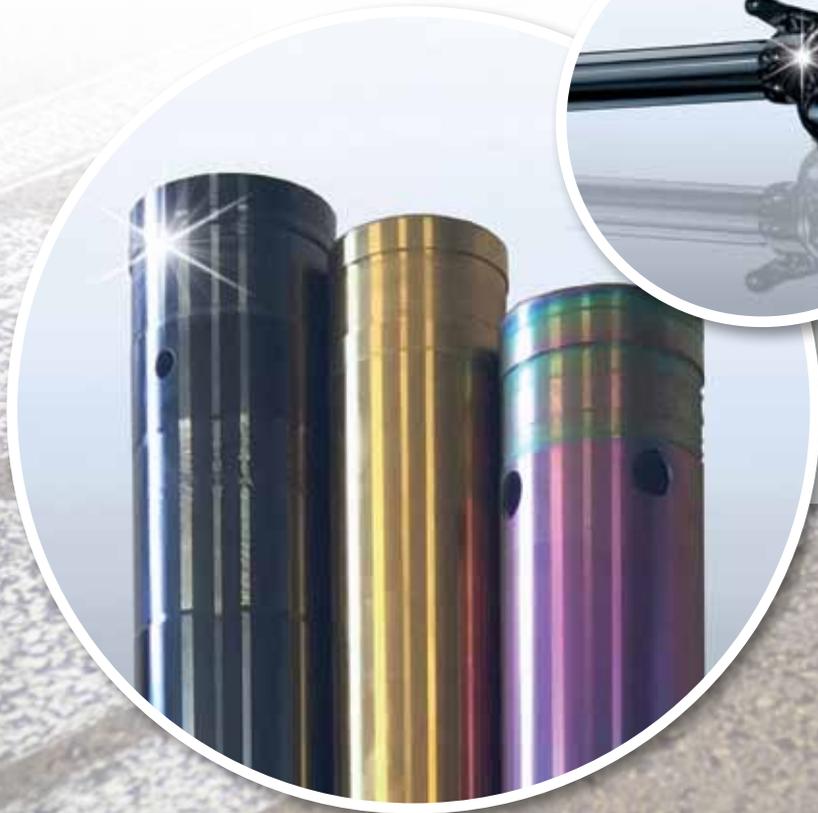
- Reduced friction
- Reduced wear
- Increased performance
- Increased reliability
- Increased service life
- Enables lighter design



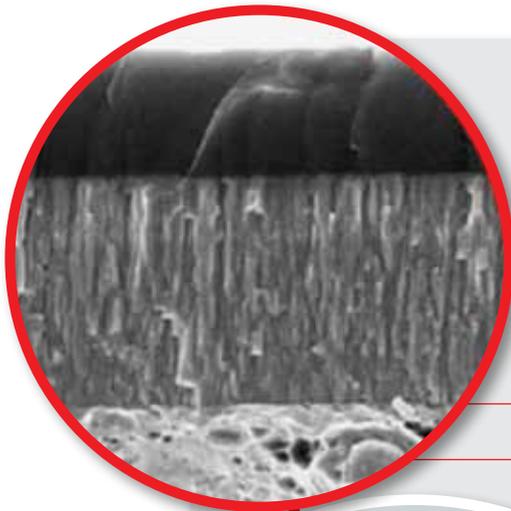
## Chassis

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