

## **High Performance Coating Materials...**

... in the Exclusive Bugatti Veyron 16.4 Sports Car



In 1939, French racing driver Pierre Veyron drove a Bugatti to victory in the famous Le Mans 24-hour race. The Volkswagen Group has revived the Bugatti automotive division and brand as part of its luxury car segment. In honor of Pierre Veyron, the new, exclusive sports car has been named Bugatti Veyron.

The Bugatti Veyron features several exceptional characteristics. With engine power of 1001 hp, the Bugatti has a top speed greater than 400 km/h (250 mph). The W-type engine features 16 cylinders, four exhaust-gas turbochargers, and two charge cooling devices. Its extremely compact design saves space and weight to give the Bugatti Veyron its exceptional powerto-weight ratio of 529 bhp/tonne.



Photos and logo courtesy of Bugatti Automobiles S.A.S

The cylinder surfaces of this engine employ a highly technical coating solutionsfriction. This solution favors compact engine design, lightweight construction and low friction loss – critical factors for this high-performance automobile.

Over the last 10 years, Oerlikon Metco has developed and optimized this technology for cylinder bores using thermal spray technology. A metal composite of carbon steel and molybdenum is sprayed onto the cylinder face by means of a rotating plasma spray gun.

The high energy density of the argon/hydrogen plasma reproducibly fuses this material. By order of Bugatti, the W-16 engines are coated by Oerlikon Metco CS Automotive. These key figures clearly show the performance of the coatings, which are applied by means of the Metco RotaPlasma<sup>™</sup> process.

Oerlikon Metco has very broad experience providing high quality, technical solutions for every type of combustion engine, whether gasoline or diesel, for passenger cars, motorbikes, scooters, trucks and race cars. Our experts throughout the world are pleased to support your needs, including application of the coating for you.

Technical Data of the Bugatti W16 Engine	
Number of Cylinders	16
Cubic Capacity	7993 cm <sup>3</sup>
Engine Performance	1001 PS at 6000 U/min.
Engine Torque	1250 Nm at 2500 U/min.



Information is subject to change without prior notice.

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