

The Simple Choice for Your Application Oerlikon Metco Ceramic Material Highlights

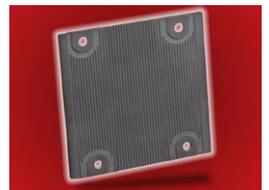
When it comes to advanced ceramic thermal spray powders, think of Oerlikon Metco. We leverage our wide range of manufacturing capabilities, accessibility to stable sources of supply, partnerships with leading research and testing institutes

and our in-house expertise in materials development to your advantage. Chances are, we may already have the product you need in our portfolio. If we do not, we are ready to work with you on a material tailored to your specific needs.

Ceramic Materials for Fuel Cells

Our ceramic materials for solid oxide fuel cell applications meet the most demanding needs of our customers. In fact, our materials are commercially proven with leading fuel cell manufacturers. Need a tailored material? Just ask us. Our portfolio includes:

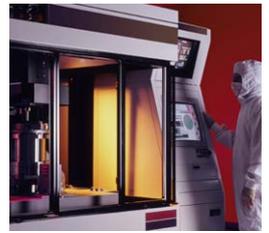
- LSM ■ LSCF ■ Mg_2SiO_4 (Forsterite) ■ MCO ■ Ni/YSZ ■ And more!



Ceramics for Semiconductor Tooling

The critical nature of semiconductor manufacturing requires crucial attention to the materials used to coat production tooling. We serve this market with high purity yttria and alumina powders that ensure semiconductor quality and reduce plasma chamber downtime. And, we can customize a product on request. Our powders offer:

- Tightly controlled chemistry and particle size distributions
- Smoothly-surfaced, spheroidal powders with superior flow and injection characteristics
- Coatings are dense (low porosity), uniform and hard
- Coatings exhibit excellent electrical insulation and corrosion resistance.



Ceramics for Sputtering Targets

Our Metco agglomerated and sintered TiO_x powders provide all the properties you are looking for to coat your rotatable sputter target. The outstanding properties of our TiO_x powders includes:

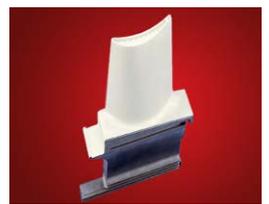
- Tightly controlled x-factors ranging from 1.7 to 1.9
- Defined powder porosity
- Excellent flow for exceptionally consistent powder feed
- Outstanding feed rates and deposit efficiencies, especially in combination with our cascading arc gun technology
- Coatings produced have very homogeneous structures that are free of delaminations and crack formation



Agglomerated and Sintered TBC Materials

Materials designed to meet your most demanding requirements for gas turbine thermal barrier applications!

- Good feed behavior
- Very flexible coating porosity adjustment
- An excellent choice for the numerous demanding gas turbine coatings used in power generation applications
- Standard 8% YSZ compositions available, as well as a variety of Low-K, CMAS-resistant compositions

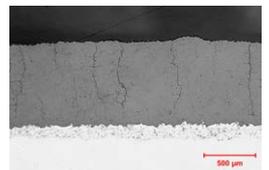


HOSP Powders for Vertically Cracked TBC Coatings

Our well-known standard HOSP thermal barrier products should be your first choice to produce validated dense, vertically-cracked TBC coatings using our cascading arc plasma spray guns.

- Proven TBC powders, with long-standing, worldwide market acceptance
- The most suitable choice to produce DVC coatings

The proof? Schedule a live technology demonstration at one of our Coating Solution Centers!



Ceramic Materials for Low-K Thermal Barrier Coatings

As the design of gas turbines become more sophisticated, designers are asking for materials with improved performance, such as thermal barrier materials with reduced thermal conductivity. We respond to these needs with:

- A variety of compositions and concepts to meet specific design requirements
- Both agglomerated and sintered materials and HOSP materials
- Materials with optimal CMAS resistance



Talk to Us About Your Ceramic Materials Needs!