

Diamond on the rise



CemeCon is expanding its diamond capacities throughout the world

Diamond coatings are indispensable for the economical machining of graphite, green sintered carbide, composites, high-silicon aluminum and metal matrix composites. Demand is rising internationally with lightweight construction in sectors such as the aerospace and the automotive industries. CemeCon, world market leader and pioneer in the field of diamond coatings, is responding to this market development and expanding its diamond capacities in coating centers around the globe.

The CCDia® series diamond coating materials are clearly superior to other solutions. They combine the advantages of crystalline and nanocrystalline layers: The alternating application of both variants produces a coating with excellent adhesion and a very smooth surface. In combination with their extreme hardness and high thermal conductivity, coated tools achieve long service lives and optimum machining results, even for the special requirements of high-tech materials. The crack-prevention properties also ensure high process reliability.

“This unique combination of properties is in great demand among tool manufacturers worldwide. And the demand is constantly growing as well, since we guarantee the same quality everywhere. Because of this, we have greatly expanded the production of diamond coatings in Europe, the USA and China,” says Bernd

Hermeler, CMO of CemeCon AG.

Diamond coating materials

PROPERTIES

Coating material: Diamond, sp³

Microhardness: 10,000 HV_{0.05}

Max. operation temperature: 650 °C

Color: Grey

USES

CCDia®AeroSpeed® for CFRP, CFRP/Al-Stacks, CFRP/Ti-Stacks

CCDia®CarbonSpeed for Graphite and ceramics, alloyed green sintered carbide

CCDia®FiberSpeed and **CCDia®MultiSpeed** for CFRP, GFRP and ceramics

In Würselen alone, the world's largest diamond coating center for machining tools, production was expanded by approximately 420 m², but Diamond is also on the rise at the other locations. Coating with CCDia® products has been available in the USA since 2014. A diamond coating center was also opened in China at the beginning of 2019. And another one will follow in Japan during the course of the year.

[CCDia®AeroSpeed®](#)

[CCDia®CarbonSpeed®](#)

[CCDia®FiberSpeed®](#)

[CCDia®MultiSpeed](#)

[Aerospace](#)

[Aircraft industry](#)

[High-performance materials](#)

[Capacity expansion](#)

[Job coating service](#)

[Coating centre](#)

[Composites](#)

[Laminates](#)

[GFRP](#)