

TECHNOLOGY GROUP– DOROS ADVANCED TECHNOLOGY



Doros Advanced Technology is a technology group that has been building a history of highly advanced nanotechnologies for 30 years, currently used in the USA, Canada, Mexico, Australia, and most EU countries. We place particular emphasis on PVD vacuum technology for diamond coatings (DLC), nanotechnologies, and microbiology.

Diamond coatings called "DLC", made using the Magnetron vacuum technique, have physical and chemical properties and an atomic structure similar to natural diamond.

Movie → open the link and **turn on the speaker 🗣️**

<https://youtu.be/5grbfJBasQk>

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DIAMOND COATINGS „DLC”

DLC has diamond-like properties, including high hardness, low friction, wear resistance, chemical inertness, biocompatibility, electrical insulation, optical transparency, and smoothness. Generally speaking, DLC is harder than natural diamond and has a coefficient of friction several times higher than Teflon.

D.A.Vac's unique process allows glass and ceramic surfaces to be coated with DLC OPTI[®], a unique diamond-like atomic bonding structure. This makes the coated surfaces exceptionally hard, resistant to corrosion, abrasion, and scratching. They possess exceptional self-cleaning properties, as their antistatic properties prevent them from attracting dust.

At the Research and Development Center located in the Technology Park near the Jasionka airport near Rzeszów, we have developed a Magnetron system operating in the "Gemini Rotary Plus" system, thanks to which new transparent diamond coatings and black, graphite coatings were created.



We show the extraordinary and unprecedented protective properties of thin Diamond coatings, which are so effective in protecting against scratches.

Diamond Glass is more resistant than quartz glass

For the first time, we're showing a video demonstrating the extraordinary properties of diamond coating. Lifetime scratch-resistant protection for glasses lenses.

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Biocidal/Fungicide Coatings DAT – 7

The DAT-7 redox coating works by activating reactive oxygen species (ROS) generated in situ from ambient water and air molecules. This mechanism causes the immediate degradation of pathogen cellular structures without the use of active substances in the sense of classic biocides (e.g., silver ions, copper, QAC). DAT-7 coatings are used in food, medicine, and cosmetics packaging systems, limiting the growth of pathogens.

DAT-7 technology ensures a high level of microbiological protection without toxicological risks, without the need to register the active substance and in full compliance with the safety rules of products intended for contact with food and the human body.

For the first time, the ecological and health-safe PVD technology was used in ventilation duct systems.

50-years of activity – no possibility of pathogen development.



Biocidal Air and Water Filters

In 2026, we will start producing biocidal cellulose filter paper and PP, PET nonwoven fabrics... Melt Blown, Spoon Bond, Felt, etc.

Filters with biocidal properties will be the first product of this kind, which will create many new possibilities of using it in the industrial production of recuperators, cabin filters for cars and especially HEPA filters, which do not require specialized maintenance because the captured bacteria are immediately denatured.



Magnetron Vacuum Devices Used for High-Performance Diamond and Biocidal Coatings UPRP (P.435709)





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