

## WEAR PROTECTION AT THE HIGHEST LEVEL!

ANTACON GmbH offers **extremely hard** and in terms of their properties never achieved **wear protection coatings** based on carbon.



The **innovative** and patented **technology** enables **superhard** and at the same time **stress-free diamond-like carbon (DLC) coatings**.

As a result, not only can layers be produced with **maximum hardness**, but also in **any desired thickness**. Their similarity to diamond is especially apparent in the resistance to various wear mechanisms.



**CONTACT US!**  
**WE LOOK FORWARD TO  
GETTING TO KNOW YOU!**

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The project is funded by the Federal Ministry for Economic Affairs and Energy and the European Social Fund as part of the EXIST programme.



high performance wear protection

customized DLC coatings

## ANTACON SERVICES

JOB COATING SERVICE

LAYER DESIGN

SAMPLINGS

CONSULTING

LAYER ANALYSIS

## POSSIBLE APPLICATIONS DLC-COATINGS



TOOLS



COMPONENTS



AUTOMOTIVE



MEDICAL TECHNOLOGY



FOOD INDUSTRY &  
PHARMACEUTICAL INDUSTRY

## YOUR ADVANTAGES AT A GLANCE STRESS-FREE DLC

- high wear resistance due to extremely hard surface finishing
- significant increase in durability due to patented technology
- reduction of production costs
- increase in production quality and process reliability
- improvement of energy efficiency
- reduction of lubricant usage
- no deformation or decrease in hardness of temperature-sensitive materials
- no post-treatment of the coatings necessary
- excellent biocompatibility
- excellent chemical resistance against aggressive substances
- individual adjustment of the electrical or biochemical layer properties
- wide range of applications on a wide variety of materials
- individual coating design according to customer requirements

## PRODUCTS ANTI-WEAR COATINGS



	STAC60®	DLC40	DLC25	CUSTOM
Film material	carbon			
Film architecture	monolayer			mono-, gradient- or multilayer
Nano-hardness $H_{IT}$ [GPa]	> 60	35 - 45	20 - 30	25 - 70
Intrinsic stress [GPa]	0,1	4 - 5	ca. 1	12 - 0,1
Coating thickness [ $\mu\text{m}$ ]	no limitation	< 6	< 10	0,1 - 10
Friction coefficient (dry against steel)	0,1			
Average roughness $R_a$ [ $\mu\text{m}$ ]	< 0,1			
Max. operating temp. [ $^{\circ}\text{C}$ ]	< 500	300 - 400		< 500
Deposition temp. [ $^{\circ}\text{C}$ ]	< 90			