

TECHNICAL DATA SHEET

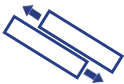
# High-tek coating DC

**General notes:**

- » This coating is composed of carbon clusters (sp<sup>2</sup>-sp<sup>3</sup> configuration) which develop an amorphous structure similar to a natural diamond and its related properties. The quota of the sp<sup>3</sup>-configured carbon lies at around 60-80%, which is the reason for the high values of hardness and abrasion resistance. This high-tech coating is done by a very innovative plasma-assisted high vacuum deposition technique. Furthermore, due to its procedure, the coating is completely free of hydrogen and oxygen.



High hardness (up to 50 GPa) and high elastic modulus (up to 350GPa)  
 High adhesion to the metallic substrate  
 Anthracite colour  
 Low thickness (1-2 microns)  
 Good elasticity



Extremely high wear and abrasion resistance (protects fine tip tweezers from wear)  
 No particulate shedding (no contamination of the handled components)



Chemically inert up to 350°C  
 High corrosion resistance  
 Bio-compatible (maintain cell integrity, no inflammatory response), no contamination of biological tissue with metal particles, nickel free  
 Not compatible with hydrogen peroxide-based solutions  
 Alcohol-resistant surface cleaning

Very clean material

**NVR (Non Volatile Residue)**

*0.088 µg/cm<sup>2</sup>*

**LPC 0.5 µm (Liquid Particle Count)**

*7043 counts/cm<sup>2</sup>*

**IC (Ion Chromatography)**

*chloride 0.039 µg/cm<sup>2</sup>*

*nitrate not detected*

*sulfate 0.005 µg/cm<sup>2</sup>*

*total anions 0.114 µg/cm<sup>2</sup>*



ESD safe coating

Surface Resistance

**10<sup>4</sup>  
ohm**