



## DIAMOND COATED TWEEZER TIPS

- Extremely Hard
- Biocompatible
- ESD safe
- Corrosion and Abrasion Resistant

**Please remember that all ranges of Ideal-tek tweezers can be specified with a Diamond Coating.**

### THE DIAMOND COATING PROCESS

Known as Diamond Like Carbon (DLC) Coating and based on pure carbon, this coating consists of carbon clusters that develop an amorph structure. Due to its high content of tetrahedral structure it acquires and retains many of the same properties of a diamond.

The DLC coating is applied with an innovative plasma-assisted deposition technique. During the coating process, the DLC film grows directly onto the exposed metallic surfaces of the tips of the tweezers (it is not a diamond powder bonded onto the metal surface).

### THE BENEFITS / ADVANTAGES OF DLC

The DLC coated tips exhibit many advantages, including:

- The non-toxic process and the biological compatibility are optimal pre-conditions for the use of diamond coated tweezers in medical applications (no contamination of biological tissue with metal particles)
- The cutting edges retain their shape over a long period, thereby increasing the operational life of the tools
- The tips of the tweezers demonstrate extreme corrosion - and wear - resistance, thereby extending the operational life of the tweezers

## THE FEATURES OF DLC

- Extreme hardness, up to 80 GPa (twice as hard as other DLC layers)
- Utmost wear resistance (around two times compared to other DLC layers, such as a-C:H DLC layers with hydrogen - made from CVD or PE-CVD process)
- Very low friction coefficient
- Perfect adherence (to stainless steel, to titan and many other material), thanks to a special intermediate layer
- Humidity resistant
- 100% biological compatibility
- Chemical stability and corrosion resistance
- Chemically inert up to 350°C
- ESD safe coating

DLC tweezers are ideally suited for applications in medical, biological and clean room environments, as well as perfect for handling hard / abrasive materials.