

## BIOMEDICINE

The layers developed by PVD Magnetron Sputtering offer the best properties in terms of wear resistance and low friction coefficient. However, the most important characteristics are the bio stability and cytotoxicity results. Both properties have been tested, approved and certified.

### **BIOCARBIDE®** DLC coating based on amorphous carbon a-C:H

#### Biocarbide



BIOCARBIDE®

- Hemo and bio-compatible due to the pure carbon nature.
- Barrier coating to avoid metal ion leaching.
- High corrosion resistance.
- Wear resistance.
- Low temperature of coating process. Lower than 200°C
- High hardness (2000-5000HV). Very low friction coefficient. (0,01- 0,01)
- Black, shiny or matte finish.
- Titanium and Titanium alloys as well as stainless steel are successfully coated.



BIOCARBIDE®

#### Biocarbide successful applications

- Components working under wear and friction conditions
- Prostheses
- Fixing dental components. Screws.
- Surgical tools
- Corrosion resistance biomedical components. Biomedical devices.
- Components in contact with the bloodstream.
- Aesthetic improvements.

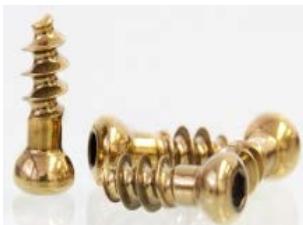


BIONITRIDE®

### **BIONTRIDE®** Coating based on TiN

#### Bionitride

- Totally bio - stable
- Corrosion resistant.
- Wear resistant.
- Low friction coefficient (0,5)
- High hardness (2500 HV)
- Barrier coating to avoid metal ion leaching
- Gold finish.



BIONTRIDE®

#### Bionitride successful applications

- Protection against surface wear.
  - Surgical tools and components
  - Dental prosthesis components
- Improvement of the ceramic-metal compatibility
  - Dental prostheses
- Aesthetic improvements
  - Abutments and made to measure prostheses.

