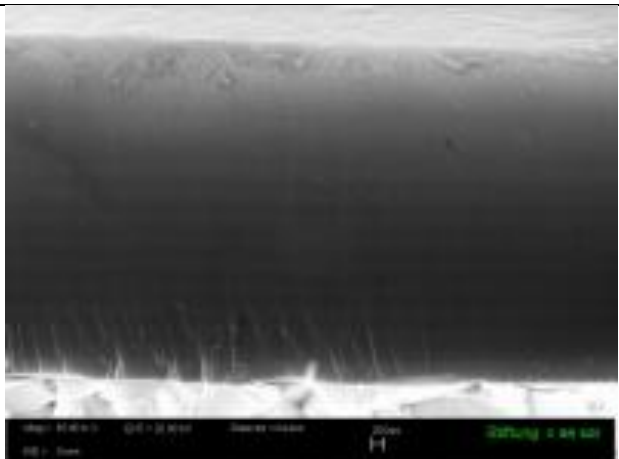


## DC99-A

| Properties           | Value               |  |
|----------------------|---------------------|------------------------------------------------------------------------------------|
| Hardness             | 3000 HV             |                                                                                    |
| Elastic Modulus      | 200 GPa             |                                                                                    |
| Coating Thickness    | 1 - 5 $\mu\text{m}$ |                                                                                    |
| Friction Coefficient | < 0,1               |                                                                                    |
| Op. Temperature      | 500 °C              |                                                                                    |
| Color                | anthracite-black    |                                                                                    |
| Composition          | a-C:H               |                                                                                    |

### Key Features

- High wear protection
- Excellent abrasion resistance
- Scratch-resistant
- Good elastoplastic behavior
- Resistant to alkalis and acids
- Chemically resistant
- Corrosion-inhibiting
- Biocompatible & food-safe (LFBG, FDA compliant)
- Very smooth surface
- Dense, compact, and amorphous layer structure

### Application Examples

- Prevents smearing and cold welding during forming of aluminum, non-ferrous metals, and stainless steels
- Extends tool life in deep-drawing dies used in cold forming
- Reduces maintenance by protecting system components from abrasive media (e.g., in the food industry)
- Minimizes cleaning effort in food processing and medical technology (e.g., surgical instruments)
- Improves tool life during machining by enhancing chip flow, even with composite materials (e.g., tools for drilling and milling non-ferrous metals)
- Protects immersion sensors from abrasive media (sensor technology)