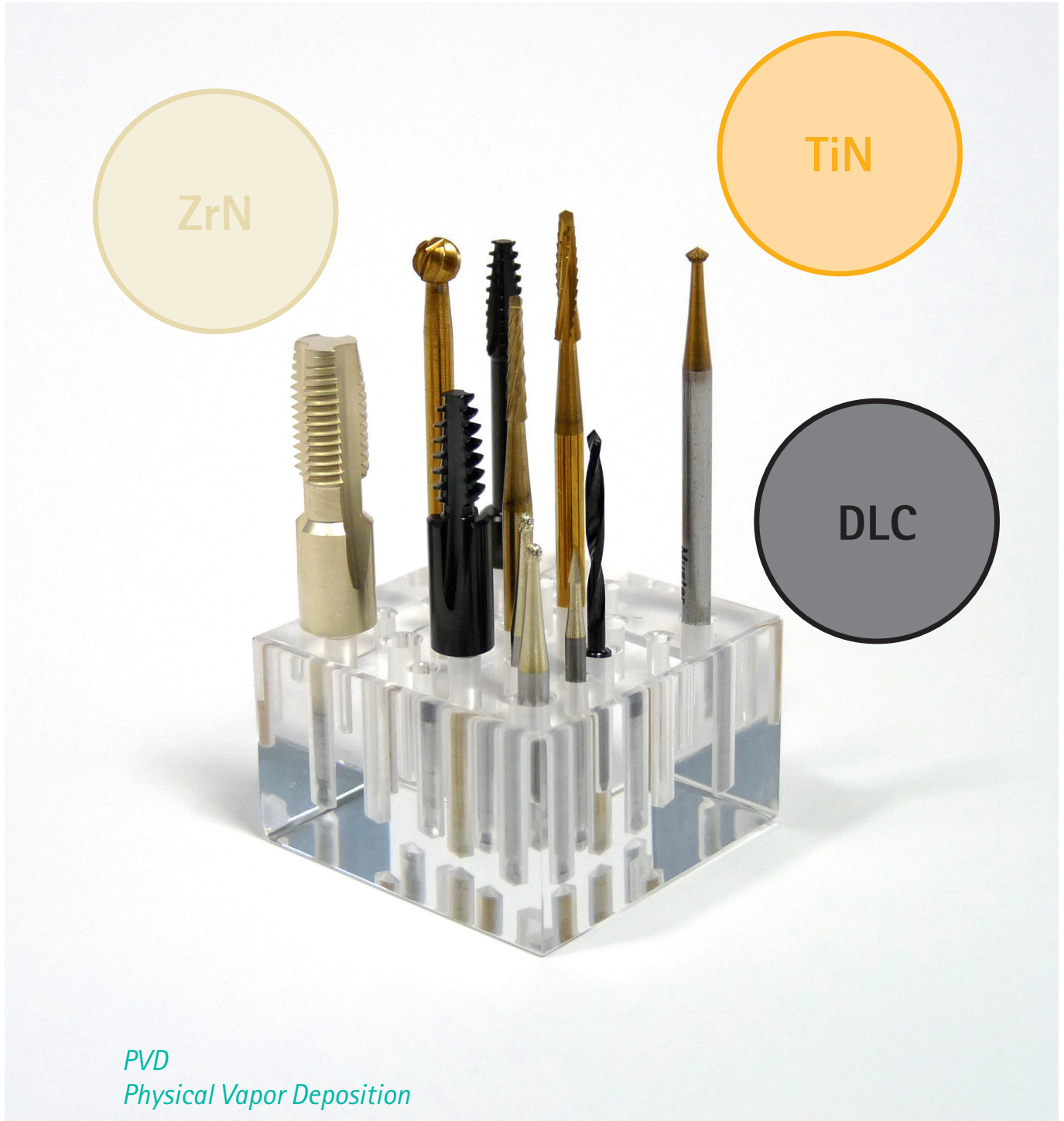


Our PVD COATINGS for your DRILLS and ABUTMENTS



PVD
Physical Vapor Deposition

PVD Coatings

PVD (Physical Vapor Deposition) coatings such as Titanium Nitride or Zirconium Nitride are applied to dental implant collars and abutments to improve the aesthetics of the product or to put wear-resistant surfaces on rotating dental instruments.

TiN ceramic hard coatings enhance the product life span of instruments and can help to prevent potential contamination because they are proven to be biocompatible.

DLC coatings are metal-containing, amorphous carbon coatings consisting of chromium and carbon elements. Both elements are converted into the hard DLC surface in a PVD process. DLC coatings exhibit a high level of adhesive strength combined with significant micro hardness.*

*Literature on request

Characterization of the Surface

Test criteria	Result Titanium Nitride (TiN)	Result Zirconium Nitride (ZrN)	Result Diamond-Like-Carbon (DLC)
Color	Golden yellow	Light gold	Black
Roughness	$R_a \leq 0.05 \mu\text{m}$	$R_a \leq 0.05 \mu\text{m}$	$R_a \leq 0.05 \mu\text{m}$
Thickness	0.5-7 μm	0.5-6 μm	0.5-2.5 μm
Adhesion strength	Class 0 and 1	Class 0 and 1	HF 1-3
Coating hardness	~2,300 HV	~2,500 HV	~700 HV

Advantages of the Surface

- Extended life time as a result of reduced wear
- Biocompatible