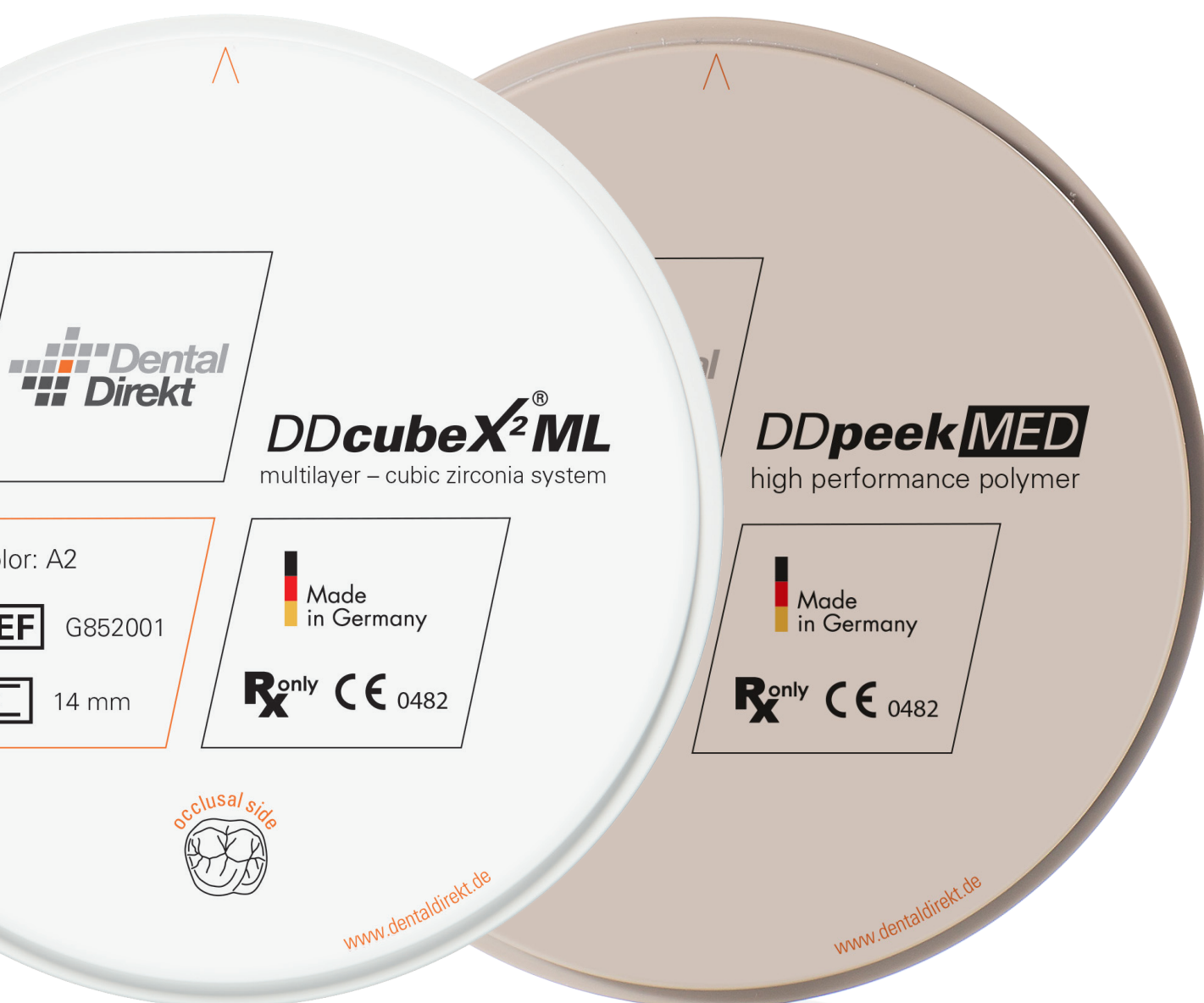


DAILY PRACTICE

# »WELL COMBINED!«

// SIEWERT-BRIDGE®: Implant-supported dentures through the intelligent combination of DD peek MED and DD cubeX<sup>2</sup>® ML //  
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CLOSE TO YOU

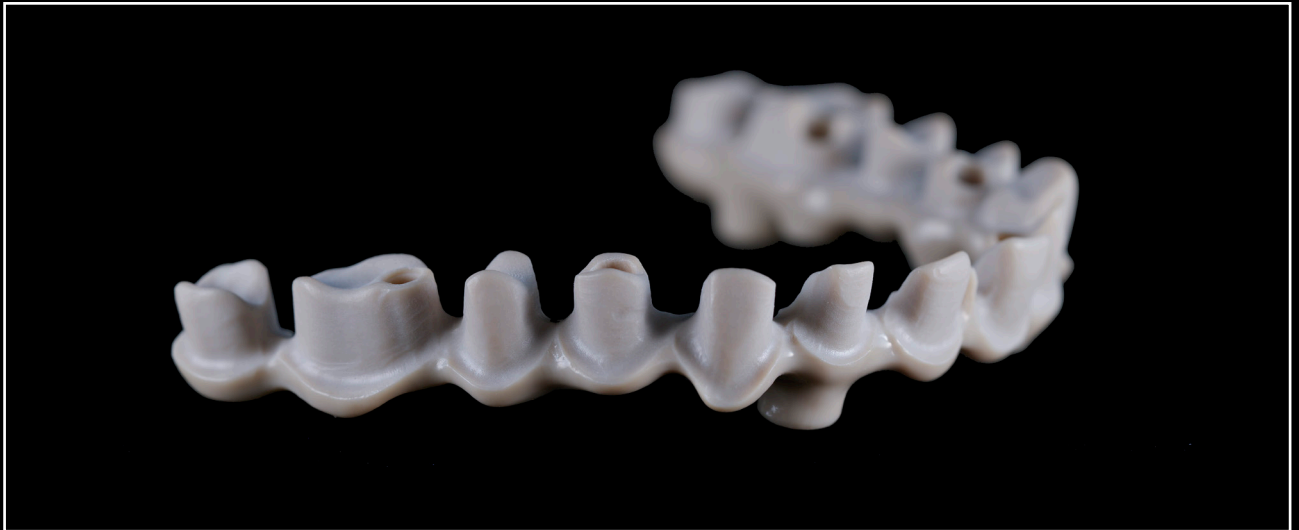
In order to reduce the mechanical and biological complications of dental restorations, Dr. Bernd Siewert has developed a concept that convinces with an intelligent material mix of zirconium oxide and the high-performance polymer PEEK (polyetheretherketone).

### DD peek MED from Dental Direkt

PEEK has been used in medicine for human implants for years due to its elasticity modulus similar to that of human bone and its excellent biocompatibility. The PEEK raw material used from Evonik – a global leader in specialty chemicals – is shaped into the typical blank form at Dental Direkt and approved as a medical product.

### A superstructure on seven implants

For our superstructure in the upper jaw, the bridge framework including tooth stumps is constructed and milled from PEEK.



We pay attention to the correct material thickness. A welcome side effect is that the bridge is metal-free and therefore also very light. And it is flexible: with ideal elasticity, PEEK is the ideal shock absorber and thus replaces the periodontal ligament of the natural tooth. This biological flexibility enables us to achieve a passive fit, i.e. an absolutely tension-free superstructure.

In addition, multi-unit abutments are incorporated into the PEEK construction. This means that there are no mechanical complications such as screw breakage or loosening. Patients perceive the denture as very comfortable.



## The bonding with cube zirconia

The crowns are designed and then milled on the tooth stumps that are already present in the PEEK base. We use DD cube X<sup>2</sup>® ML for the individual crowns. These are individualised with DD Art Elements before sintering and then finalised with DD contrast®. For high vertical dimensions, we apply pink acrylic for aesthetic reasons. The secure bond between PEEK and zirconia is primarily achieved by the optimal stump shape in PEEK, which the dental technician designs in exocad. The crowns are bonded with DD Solid Link.



The 100% CAD/CAM fabrication of the SIEWERT-BRIDGE® makes it possible to incorporate an exact replica of the intended restoration made of aesthetic PMMA polymer (DD poly X ML) as a temporary restoration without any additional effort, with which really all parameters are clarified in advance. The definitive SIEWERT-BRIDGE® made of PEEK and zirconia is then a piece of cake.



## DD peek MED – the polymer steel.

DD peek MED blanks offer the ideal combination of biocompatibility and fracture strength. PEEK has a similar elasticity modulus to human bone and is extremely wear resistant. These attributes have made it a sought-after material in surgical endoprosthetics. Compared to titanium implants, stress peaks at the interface with bone are reduced. Dental constructions also benefit from this property. For example, screw and adhesive connections of the dental prosthesis are also relieved. The material's absolute biocompatibility is underlined by its inert property against body fluids, making it the ideal material for allergy patients.

## DD cubeX<sup>2</sup>® ML – the monolithic anterior zirconia As stable as zirconium oxide and as translucent as lithium disilicate.

The super-high translucent DD cubeX<sup>2</sup>® ML sets a new zirconia standard with its cubic-tetragonal microstructure (~50 % cubic/ ~ 50 % tetragonal). The innovative mixing ratio produces a light transmission previously unattained for zirconium oxides and, due to its high translucency, makes DD cubeX<sup>2</sup>® ML the ideal material for beautiful and natural-looking anterior restorations up to three-unit bridges including one molar. In the multilayer version, the five main layers are optimally coordinated with each other and ensure homogeneous mixing in the transition layers – this guarantees a smooth shade and translucency progression in the steps. With the precise reduction of additives from incisal to cervical by Multi Additive Technology®, the perfect interaction of shade and translucency is achieved. Available in all 16 VITA® tooth shades.



DD peek MED product page  
on [www.dentaldirekt.de/en](http://www.dentaldirekt.de/en)



DD cubeX<sup>2</sup> ML product page  
on [www.dentaldirekt.de/en](http://www.dentaldirekt.de/en)