Abutment Solutions
For customized implant restorations fabricated with CEREC® and inLab®

Digital all around.
Coordinated digital workflows in CAD/CAM technology open up new possibilities for implant-supported prosthetics – from impression taking to the final restoration – and ensure functional, highly aesthetic, innovative and cost-efficient results. [1-3]

The digital treatment workflow

Together with Ivoclar Vivadent’s innovative restorative materials, the CAD/CAM technique facilitates the planning and fabrication of implant-supported restorations – from temporary to permanent implant prosthetics. [2-4]

The following products are available for the fabrication of Abutment Solutions:
- Telio® CAD A16
- IPS e.max® CAD A14 / A16
- Multilink® Hybrid Abutment

Telio CAD A16 and IPS e.max CAD blocks optimally complement each other. Therefore, CAD/CAM users are provided with a complete digital workflow which enables them to reliably fabricate temporary restorations and permanent hybrid abutment crowns.

Telio CAD A16 blocks close the gap in the system chain of the proven IPS e.max CAD Abutment Solutions by including the temporization stage. The temporary restoration can be incorporated immediately after the implantation procedure or after the healing phase. Furthermore, it offers many options in terms of soft tissue management. Therefore, Telio CAD A16 forms the basis for an aesthetic and functional therapy result.
With Telio® CAD A16 from the temporary...

Telio® CAD A16 is designed for the CAD/CAM-supported fabrication of temporary hybrid abutment crowns. This 2-in-1 solution, i.e. crown and abutment combined, is used after the insertion of the implant and before the placement of the permanent restoration made of IPS e.max® CAD in the anterior and posterior region. [2, 4]

Telio CAD A16 supports the reconstruction of the gingiva during the first treatment phase. The surrounding soft tissue is individually formed. [2, 4]

The homogeneous, highly cross-linked PMMA block Telio CAD A16 features a predefined interface of size 5 or 1 for the direct cementation with the Dentsply Sirona TiBase.

Once a permanent solution is required, IPS e.max® CAD can be used to fabricate individual, implant-supported hybrid structures for single-tooth restorations using CAD/CAM technology. [1, 4, 5]

Depending on the indication, a tooth-shaded hybrid abutment with separate crown or a monolithic hybrid abutment crown can be fabricated. The particularly strong (530 MPa) lithium disilicate glass-ceramic ties in seamlessly with the temporary Telio CAD restoration.

The IPS e.max CAD blocks A14 and A16 feature a predefined interface of size 5 or 1 for the direct cementation of the restoration with the Dentsply Sirona TiBase.

The temporary – key to a successful treatment

Hybrid abutment crown made of Telio CAD A16:
• Cemented to the TiBase, suitable for immediate load-bearing or after the healing phase [2, 4]
• Easily designed emergence profile [2, 4]
• Visualization of the permanent restoration
• Blocks are available in the size A16 and in nine LT shades (BL3, A1, A2, A3, A3.5, B1, B3, C2, D2)

The permanent restoration – flexibility during treatment

IPS e.max® CAD restoration
• Excellent fit due to CAD/CAM processing technology [1-3]
• Esthetic restorations due to tooth-shaded hybrid abutments
• Hybird abutment crown (2-in-1) offers functionality and efficiency [1-4]
• Good biocompatibility with oral soft tissue [9-11]

Digital, individualized patient treatment in detail:

Virtual situation: Preparation for the digital, intraoral impression taking

Temporary hybrid abutment crown made of Telio® CAD A16

Seated Telio® CAD A16 restoration

Optional: Design of the emergence profile by composite layering

Shaped emergence profile after removal of the temporary Hybrid abutment crown

Milled abutment crown made of IPS e.max® CAD

Clinical try-in

Final, seated IPS e.max® CAD hybrid abutment crown

Source: Dr L. Enggist / Dr Stephanie Huth, Ivoclar Vivadent AG
Multilink® Hybrid Abutment – strong bond and esthetics

Multilink® Hybrid Abutment

The self-curing luting composite Multilink Hybrid Abutment is used for the permanent cementation of ceramic and PFM/PEM structures made of e.g. IPS e.max CAD or Telio® CAD to TiBases.

This results in:
- permanent cementation due to high bond strength values [12, 13]
- optimal esthetics due to high opacity levels [12]
- easy handling due to the convenient Automix syringe. [12]

Telio® CAD and IPS e.max® CAD restorations are cemented to the TiBase in only a few steps.

Multilink® Hybrid Abutment

IPS e.max® CAD and Telio® CAD A16

Multilink

Multilink Hybrid Abutment

The surfaces of the specimens made of IPS e.max (LS2) glass-ceramic were given one of the following three surface finishes: untreated, polished, or glazed. Thermocouples were inserted to record surface temperature changes. The mechanical and physical properties of polished and glazed surfaces were determined using a cell culture model based on chicken epithelium.

**Physicochemical and biological study on the properties of polished versus glazed lithium disilicate zirconia ceramic (IPS e.max®)**

University of Reims, France

The surfaces of the specimens made of IPS e.max (LS2) glass-ceramic were given one of the following three surface finishes: untreated, polished, or glazed. Thermocouples were inserted to record surface temperature changes. The mechanical and physical properties of polished and glazed surfaces were determined using a cell culture model based on chicken epithelium.

**References**
