# Vitéo® Base Ti

THE TITANIUM BASE FROM THE MATERIALS SPECIALISTS

## THE BASE FOR SUCCESS

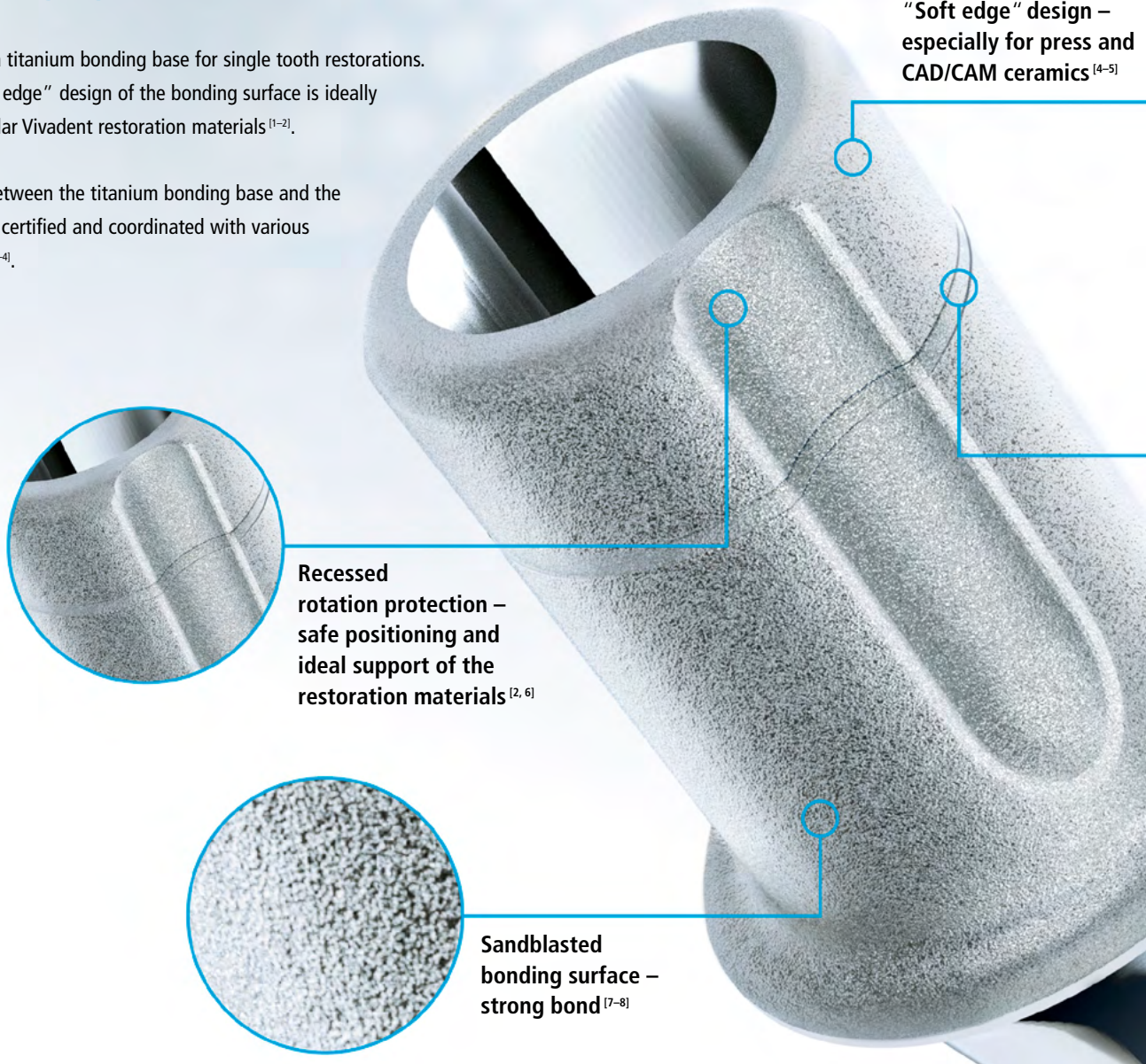
ivoclar digital®

# THE BASE FOR SUCCESS

## THE TITANIUM BONDING BASE FROM THE MATERIALS SPECIALISTS

Viteo® Base Ti is a titanium bonding base for single tooth restorations. The special, "soft edge" design of the bonding surface is ideally suited to the Ivoclar Vivadent restoration materials [1–2].

The connection between the titanium bonding base and the implant has been certified and coordinated with various implant systems [3–4].

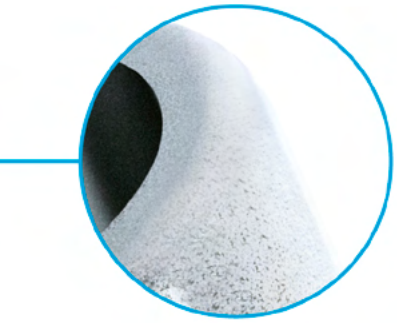


**"Soft edge" design – especially for press and CAD/CAM ceramics** [4–5]

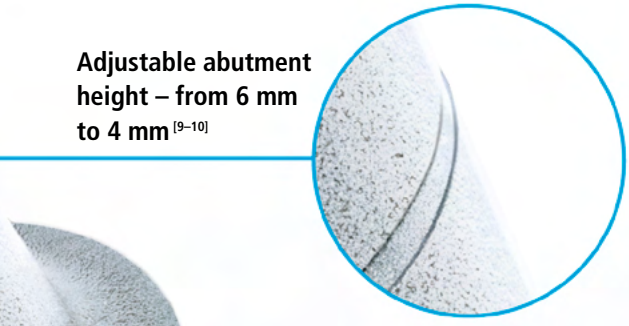
**Recessed rotation protection – safe positioning and ideal support of the restoration materials** [2, 6]

**Sandblasted bonding surface – strong bond** [7–8]


[1] Eser A., FEM Simulations of Various Abutments for Straumann Bonel Level Implant, *Test Report*, Ivoclar Vivadent AG, 2019.
[2] Albrecht T., Härdi S., Gnos T., Entwicklung eines virtuellen Teststands für dentale Implantat-Abutments, *Study Report*, Interstaatliche Hochschule für Technik Buchs, 2014.
[3] Burger G., Kompatibilität zu Implantat Systemen- Passgenauigkeit zu verschiedenen Implantat-Systemen bzw. Schnittstellen zum Implantat gemäss Originalteile, *Test Report*, Ivoclar Vivadent AG, 2015.
[4] Scherrer P., Spirig U., Designvalidierungsbericht, *Test Report*, Ivoclar Vivadent AG, 2016.
[5] Burger G., Analyse keramische Press- und CAM-Passgenauigkeit @ DF Implant Base Ti, *Test Report*, Ivoclar Vivadent AG, 2015.
[6] Burger G., Implantat Base Titan Passgenauigkeit Rotationlock, *Test Report*, Ivoclar Vivadent AG, 2015.
[7] Brot A., Implant Base Ti Scherhaftung, *Test Report*, Ivoclar Vivadent AG, 2015.
[8] Burger G., Heintze S., Summary of Pre-Clinical Testing (MDR), *Test Report*, Ivoclar Vivadent AG, 2020.



**Adjustable abutment height – from 6 mm to 4 mm** [9–10]



**Tried-and-tested implant connection** [9,11]

# MATERIALS

Viteo Base Ti can be used in conjunction with temporary and permanent Ivoclar Vivadent restorative materials. It doesn't matter whether the restoration is pressed or fabricated using the CAD/CAM technique [9].


**Telio® CAD**

– Highly cross-linked, clinically proven PMMA blocks* and discs for temporary restorations

**IPS e.max® CAD / IPS e.max® Press**

– Esthetic, high-strength lithium disilicate glass-ceramic for permanent restorations
– Blocks* for CAD/CAM applications
– Ingots for the press procedure
– Special, burn-out Viteo Base Press Sleeves for the press technique



Would you like to learn more about the processing of Viteo Base Ti? Information on the Viteo Base CAD libraries is available in the download centre at **www.ivoclarvivadent.com**.

## SERVICE+

As an alternative, the fabrication of hybrid abutments and hybrid abutment crowns with Viteo Base Ti can be outsourced to the Service+ milling centre in Naturns, Italy.

* Currently only available for Planmeca systems


[9] Scherrer P., Spirig U., Designvalidierungsbericht, *Test Report*, Ivoclar Vivadent AG, 2016.
[10] Burger G., Ti Cutter for Viteo Ti Abutments, *Test Report*, Ivoclar Vivadent AG, 2015.
[11] Burger G., Kompatibilität zu Implantat Systemen- Passgenauigkeit zu verschiedenen Implantat-Systemen bzw. Schnittstellen zum Implantat gemäss Originalteile, *Test Report*, Ivoclar Vivadent AG, 2015.

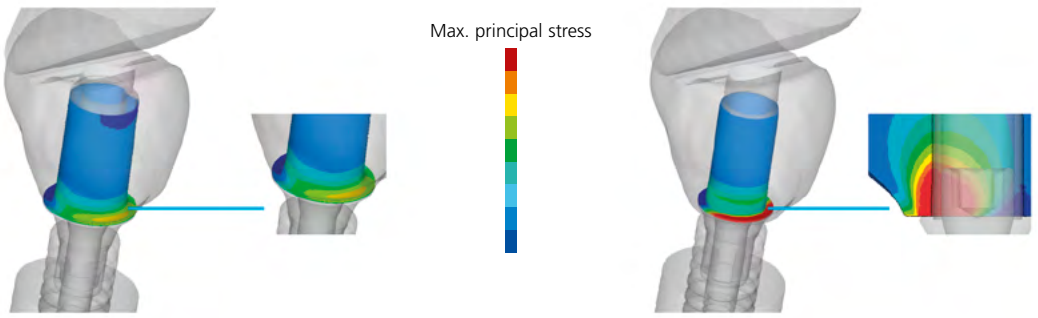
# THE BASE FOR MATERIALS

## SOFT EDGE DESIGN REDUCES THE TENSION BETWEEN THE ABUTMENT AND THE RESTORATION MATERIAL [12–13]

When the restoration is subjected to stress or tension, the rounded design of the bonding surface, without edges and rotation pins, allows a uniform distribution of force – comparable to the design of a framework with veneering materials [13–14].

The result: The tensile or compressive stress is evenly distributed on the bonding surface and, therefore, throughout the restoration. (Excessive) stress in selective areas is avoided. This reduces the risk of fractures [13–14].

### Comparison of different titanium bonding base designs with force initiation of 300 N*




### VITEO® BASE

– Even distribution of stress throughout the restoration [13-14]
– No stress peaks within the restoration [13]

### CONVENTIONAL TITANIUM BONDING BASE

– High stress on the luting composite in selective areas
– Distinct stress peaks within the restoration

* Corresponds to the maximum force possible on an implant-supported molar


[12] Heintze S., Eser A., Präklinik (FEM-Simulation), *Test Report*, Ivoclar Vivadent AG, 2016.
[13] Eser A., FEM Simulations of Various Abutments for Straumann Bonel Level Implant, *Test Report*, Ivoclar Vivadent AG, 2019.
[14] Albrecht T., Härdi S., Gnos T., Entwicklung eines virtuellen Teststands für dentale Implantat-Abutments, *Study Report*, Interstaatliche Hochschule für Technik Buchs, 2014.

# ADJUSTABLE ABUTMENT HEIGHT SUPPORTS COMPLIANCE WITH THE MINIMUM LAYER THICKNESSES OF THE MATERIALS [15–16]

Implants are often inserted at the bone level, so that the vertical distance to the antagonist tooth is increased. In this case, the titanium bonding base, with its long shaft height, ideally supports the restoration material. With a shorter vertical distance, a shorter shaft height is advantageous.

Viteo Base Ti can be shortened from 6 to 4 mm. A laser marking on the shaft indicates the minimum permissible height. The shaft is cut at a height of 4 mm with a separating disc. Subsequently, the Viteo Base Trimmer is used to restore the soft-edge design. Viteo Base Ti provides high flexibility and supports the restoration material [16–20].


## THE OPTIMAL HEIGHT

An evaluation of more than 1,000 data files from milling centres showed an average abutment height of 8.53 mm*. The smallest height (4.95 mm) was measured in the molar region, the largest in the anterior region (13.12 mm).

Due to the flexible design of the Viteo Base Ti, a shaft height of 6 mm or 4 mm is possible. As a result, the preparation guidelines and wall thicknesses of the materials used can be met in different clinical situations [15–17].

* Titanium base and abutment, measured from the cervical area of the hybrid abutment restoration up to the edge. Source: Goran Burger, MDT, R&D Ivoclar Vivadent, Schaan, Liechtenstein, 2016


[15] Burger G., Implant Base Titan Untersuchungsbericht, Definition der Kaminhöhen, *Test Report*, Ivoclar Vivadent AG, 2014.
[16] Scherrer P., Spirig U., Designvalidierungsbericht, *Test Report*, Ivoclar Vivadent AG, 2016.
[17] Burger G., Entwicklungsbericht zur Produktionsfreigabe, *Test Report*, Ivoclar Vivadent AG, 2016.
[18] Burger G., Heintze S., Summary of Pre-Clinical Testing (MDR), *Test Report*, Ivoclar Vivadent AG, 2020.
[19] Burger G., Ti Cutter for Viteo Ti Abutments, *Test Report*, Ivoclar Vivadent AG, 2015.
[20] Eser A., FEM Simulations of Various Abutments for Straumann Bonel Level Implant, *Test Report*, Ivoclar Vivadent AG, 2019.

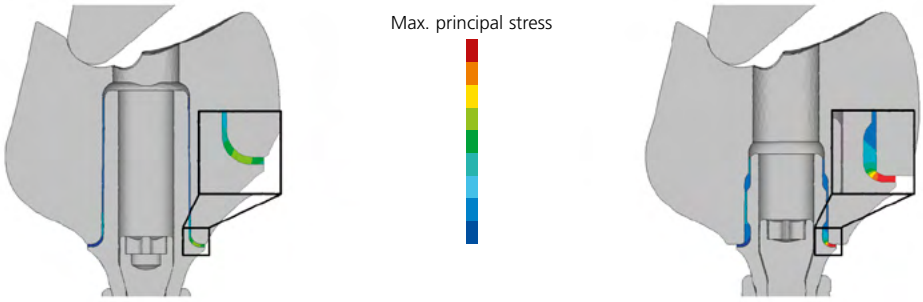
# THE BASE
# FOR A STRONG BOND

## RECESSED ROTATION PROTECTION SUPPORTS THE RESTORATION MATERIAL [21–22]

The inner anti-rotation protection is located vertically throughout the entire height of the shaft. It enables precise positioning of the hybrid abutment and the abutment crown during cementation [21–22].

Due to the recessed design, the wall thickness of the restoration material is not reduced [21–22]. Since there is a uniform cement gap, there is no tension [21, 23–24].

### Comparison of different titanium bonding base designs with force initiation of 300 N*




### VITEO® BASE TI

– Uniform thickness of the luting composite [22]
– No stress peaks within the luting composite [25]
– Supports the restoration material [25]

### CONVENTIONAL TITANIUM BONDING BASE

– Uneven thickness of luting composite due to bonding surface design
– High stress in the luting material
– Edges / undercuts weaken the restoration material


[21] Albrecht T., Härdi S., Gnos T., Entwicklung eines virtuellen Teststands für dentale Implantat-Abutments, *Study Report*, Interstaatliche Hochschule für Technik Buchs, 2014.
[22] Burger G., Implantat Base Titan Passgenauigkeit Rotationlock, *Test Report*, Ivoclar Vivadent AG, 2015.
[23] Burger G., Analyse keramische Press- und CAM-Passgenauigkeit @ DF Implant Base Ti, *Test Report*, Ivoclar Vivadent AG, 2015.
[24] Eser A., FEM Simulations of Various Abutments for Straumann Bonel Level Implant, *Test Report*, Ivoclar Vivadent AG, 2019.
[25] Heintze S., Eser A., Präklinik (FEM-Simulation), *Test Report*, Ivoclar Vivadent AG, 2019.

# SANDBLASTED BONDING SURFACE SAVES TIME [26]

The bonding surface of Viteo Base Ti is industrially preconditioned. Sandblasted surfaces in combination with the appropriate luting system (Multilink® Hybrid Abutment) ensure a good bond between the titanium base and the restoration material [27].

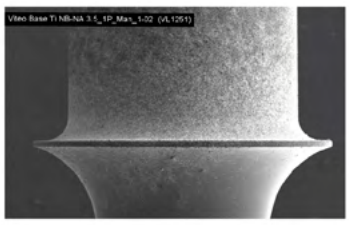
This saves time and ensures a reliable marginal seal after cementation [27]. This is of particular importance close to the bone.

A good marginal seal is important in the vicinity of the bone.
Source: Dr Lukas Enggist, Marie Reinhardt, Pre-Clinic, R&D Ivoclar Vivadent, Schaan, Liechtenstein, 2016

## Industrially sandblasted Viteo® Base Ti vs manually sandblasted titanium bonding base

The industrial preconditioning ensures that the surface on the implant connection remains undamaged [28–30].

Cervical and emergence profile areas remain untouched.



Significant damage to the surface at the margin and in the emergence profile area.

SEM image. Source: Goran Burger, MDT, R&D Ivoclar Vivadent, Schaan, Liechtenstein, 2016


[26] Caduff R., Zeitersparnis durch industriell vorkonditionierte (sandgestrahlte) Klebebasis der Viteo® Base Ti, *Untersuchungsbericht*, Ivoclar Vivadent AG, 2021.
[27] Burger G., Randspaltdichtigkeit IV Viteo @ IPS e.max CAD / Multilink Hybrid Abutment, *Test Report*, Ivoclar Vivadent AG, 2020.
[28] Burger G., Analyse industrielle und manuelle Oberflächen-Konditionierung, *Test Report*, Ivoclar Vivadent AG, 2016.
[29] Scherrer P., Spirig U., Designvalidierungsbericht, *Test Report*, Ivoclar Vivadent AG, 2016.
[30] Burger G., Entwicklungsbericht zur Produktionsfreigabe, *Test Report*, Ivoclar Vivadent AG, 2016.

# CONDITIONING – MONOBOND® PLUS AND SR CONNECT

The correct conditioning of the restoration material as well as the appropriate cementation method form the basis for long-lasting implant restorations [31].

## MONOBOND® PLUS

The universal primer conditions the bonding surfaces of Viteo Base Ti as well as those of the permanent restoration (IPS e.max® CAD, IPS e.max® Press).


## SR CONNECT

The bonding agent conditions the bonding surface of the temporary restoration (Telio® CAD) in preparation for cementation to Viteo Base Ti.


[31] Burger G., Heintze S., Summary of Pre-Clinical Testing (MDR), *Test Report*, Ivoclar Vivadent AG, 2020.

# GUARANTEE –
# FOR SATISFIED PATIENTS





## VITEO BASE TI ABUTMENT SOLUTIONS

If the entire prosthetic implant restoration is produced with Ivoclar Vivadent restoration materials, you will receive an additional guarantee on the products used*.

* More information on the guarantee:
www.ivoclarvivadent.com/viteo

## CEMENTATION MULTILINK® HYBRID ABUTMENT

The self-curing luting composite Multilink® Hybrid Abutment is used for the permanent cementation of the titanium bonding base Viteo Base Ti to ceramic or PMMA structures, such as those made from IPS e.max CAD, IPS e.max Press or Telio CAD. Two different levels of opacity help to achieve an ideal esthetic appearance.

# DIGITAL EXPERTISE UNDER ONE ROOF

Ivoclar Digital is a competent digital partner, which supports dentists and dental technicians along the entire digital process chain. A great deal of importance is placed on simple and understandable procedures. The portfolio for the digital work process is divided into four areas:

## CONSULT

IvoSmile[1], the innovative software application based on Augmented Reality, supports the dialogue between dental professionals and their patients

## DESIGN

Versatile scanners, intuitive design software from our partners and exclusive add-ons

## DECIDE

High-performance materials such as IPS e.max® – the world's most used all-ceramic system[2]

## PRODUCE

Technologically high-quality equipment for the production of esthetic restorations

## S E R V I C E +

***Service+*** The offer is complete with Service+. The service provision makes your entry into digital production easier and serves as a back-up partner for dental laboratories.*

* Service+ is available in the following countries: Austria, Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Greece, Holland, Hungary, Ireland, Italy, Liechtenstein, Luxembourg, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and United Kingdom.

[1] IvoSmile is currently only available in the following countries: Bosnia-Herzegovina, Brazil, China, Croatia, Liechtenstein, Montenegro, Romania, Switzerland, Serbia, Slovenia, and the US. It will be launched in additional countries starting as from April 2019.
[2] Based on sales figures

web.ie/2021-06-29

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