

## FlexLink® TiBase

Sustainable Aesthetic Solution



# FlexLink TiBase For Certain® And External Hex Implant Systems

#### The FlexLink TiBase

The FlexLink TiBase is designed for digital and traditional procedures with both screw- and cement-retained applications.

- Clinicians and laboratory partners require aesthetic solutions that deliver restorative flexibility and implant/abutment connection strength. FlexLink TiBase can help clinicians achieve aesthetic restorations that can be sustained over time in the various biotypes and challenging cases.
- The FlexLink TiBase solution combines the proven T3® surgical platform with a broad restorative portfolio to provide lab flexibility in treatment solution planning.

#### FlexLink TiBase Design

#### Sustainable Aesthetic Solution

The T3 Implant's macrodesign and multi-surface topography aims to facilitate in aesthetic patient outcomes. FlexLink TiBase incorporates the Certain connection for both single-unit and multi-unit restorations. The FlexLink TiBase is nitride coated for improved aesthetics compared to an uncoated silver abutment.

Combining these technologies with the proprietary Gold-Tite® Screw increases the seal integrity of the Certain connection through SureSeal™ Technology, minimalizing microleakage and preserving hard and soft tissue to provide sustainable aesthetics.¹



#### **Features And Benefits**

- SureSeal Technology provides seal integrity with the proprietary Gold-Tite Screw in combination with the Certain internal connection.
- The Gold-Tite Screw is a high performing screw and delivers +113% more clamping force than a non-coated screw.<sup>2</sup>
- Titanium-nitride coating allows for use of translucent materials without sacrificing aesthetics.
- FlexLink TiBase offers restorative flexibility with both cement- and screw-retained options.
- FlexLink TiBase is indicated for single-unit, multiple-unit and full-arch restorations utilizing either a digital or traditional workflow.

# Seal Integrity Through Implant/Abutment Junction

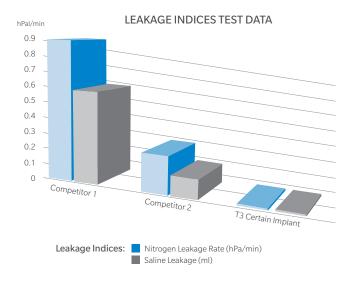
#### SureSealTechnology

## SureSeal technology is designed for seal integrity through the implant/abutment junction.

This is achieved with a combination of the proprietary Gold-Tite Screw with the Certain internal connection and precision manufacturing.<sup>3</sup>

#### Gas Enhanced Leakage Test<sup>4,\*</sup>

- Gas Enhanced Leakage Testing (GELT) for implants was carried out by the University of Zurich, Switzerland.<sup>4</sup>,\*
- Twenty samples of each implant system were evaluated.



¥ Pre-clinical studies are not necessarily indicative of clinical results.

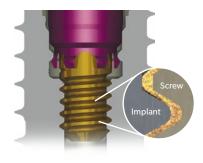
#### Implant/Abutment Seal Strength

The combination of the Certain internal connection and the Gold-Tite Screw provides a robust implant/abutment junction (IAJ) interface through exacting tolerances and proprietary technology that generates increased clamping forces.<sup>3</sup>

# Gold-Tite Screw

#### Implant/Abutment Clamping Force

Gold-Tite surface lubrication allows the screw to rotate further, increasing clamping force and maximizing abutment stability.<sup>5</sup>



## SureSeal Technology with FlexLink TiBase

#### Seal Strength

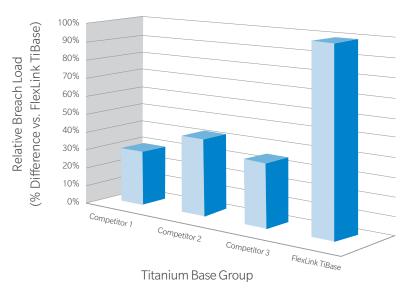
A comparative analysis of the seal performance of FlexLink Titanium bases versus aftermarket titanium bases for the Certain connection.

- This benchtop study was conducted to assess the Implant/Abutment Junction (IAJ) seal performance of a competitor titanium base versus FlexLink Titanium bases during simulated mastication and to assess potential causes for any differences found between the test groups.
- The titanium bases and the corresponding manufacturer supplied screws were assembled to test implants using the prescribed torque from the supplier. The starting load for the test was 25 Ncm and the load was increased in increments of 25 Ncm until a leak occurred.

#### **Seal Performance Results**

FlexLink TiBase withstood a dynamic load, which was on average two to three times greater in comparison to the individual aftermarket titanium base test groups.

Difference in performance of FlexLink TiBase with SureSeal Technology and competitor TiBases may be attributed to design differences.



¥ Bench studies are not necessarily indicative of clinical results.

- FlexLink TiBase mean seal strength (385 N) is more than 300% higher than Competitor 1 TiBase (125 N), 230% higher than Competitor 2 TiBase (165 N) and 285% higher than Competitor 3 TiBase (135 N) mean.
- Four brands of titanium bases were tested (T3 Certain Tapered Implant System and three aftermarket systems), with five samples of each system.
- Test results can be viewed at: https://www.zimmerbiometdental.com/resourcelibrary/TiBaseSealStrength\_MKT1002.pdf

### **Ordering Information**

#### Certain FlexLink TiBase<sup>‡</sup>

			Hexed/Non-Hexed	Height	3.4 mm	4.1 mm	5.0 mm	
11				Hexed	3.5 mm	IEMTB31G	IESTB31G	IEWTB31G
			Hexed	5.5 mm	IEMTB51G	IESTB51G	IEWTB51G	
IUNIHG	IEMTB51G	ILRGHG	IEMTB32G	Non-Hexed	3.5 mm	IEMTB32G	IESTB32G	IEWTB32G

Gold-Tite Screws are included with FlexLink TiBase Abutments.

#### **Certain Ancillary Components**

Hexed/Non-Hexed	Waxing Screw	Try-in Screw
Hexed		
	IEWSTB1	IUNITS
Non-Hexed		ZSIMI)
	IEWSTB2	IUNITS2

Diameter	Scan Post		
3.4 mm	IEMSP34		
4.1/5.0 mm	IESTSP40		

#### External Hex FlexLink TiBase<sup>‡</sup>

			Hexed/Non-Hexed	Height	3.4 mm	4.1 mm	5.0 mm
W			Hexed	3.5 mm	EMTB31G	ESTB31G	EWTB31G
			Hexed	5.5 mm	EMTB51G	ESTB51G	EWTB51G
UNISG	EMTB51G	EMTB32G	Non-Hexed	3.5 mm	EMTB32G	ESTB32G	EWTB32G

Gold-Tite Screws are included with these FlexLink TiBase Abutments.

#### **External Hex Ancillary Components**

Hexed/Non-Hexed	Waxing Screw	Try-in Screw
Hexed/ Non-Hexed		
	WSU30	MUNITS/UNITS

Diameter	Scan Post
3.4 mm	EMSP34
4.1/5.0 mm	ESTSP40

<sup>&</sup>lt;sup>‡</sup>FlexLink TiBase is not cleared for sale in United States.

#### References

- 1. Lazzara R.<sup>††</sup> Dental implant system design and the potential impact on long-term aesthetics: A review of the T3 Tapered Implant. ART1193EU Biomet 3i White Paper. Biomet 3i, 2012, Palm Beach Gardens, Florida, USA. https://www.zimmerbiometdental.com/dental/ART1193EU\_Implant\_White\_Paper\_SECURED.pdf
- Suttin Z<sup>†</sup>, Towse R<sup>†</sup>. Effect of abutment screw design on implant system seal performance. Presented at the European Association for Osseointegration, 20th Annual Scientific Meeting; 2012. https://www.zimmerbiometdental.com/dental/EAO\_Effect\_of\_Abutment\_Screw\_Design\_on\_the\_Seal\_Performance\_of\_an\_External\_ Hex\_Implant\_System\_Poster\_poster360\_EN.pdf
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- 4 Al-Jadaa A, Attin T <sup>††</sup>, Peltomäki T, Schmidlin PR. <sup>††</sup> Comparison of three in vitro implant leakage testing methods. Clin Oral Impl Res. 2015;26(4):e1-7.
- 5. Byrne D, Jacobs S, O'Connell B, Houston F, Claffey N. Preloads generated with repeated tightening in three types of screws used in dental implant assemblies. J. Prosthodont. 2006 May–Jun; 15(3):164-171.
- \* Primary researcher's PhD fellowship was supported by Biomet 3i, LLC. The research was funded by Biomet 3i, LLC. Aim of study was to develop a customized and standardized measurement device allowing repetitive non-destructive evaluations of implant leakage. Three implant systems were tested (n=20, 4 of each group which were negative controls, 4 assemblies per company were tested). Pre-clinical and/or benchtop studies are not necessarily indicative of clinical performance. Poster presentation can be reviewed at: https://www.zimmerbiometdental.com/dental/Poster\_Al\_Jadaa\_et\_al\_GELT.pdf.
- † The authors conducted this research while employed at Biomet 3i, LLC.
- †† These clinicians have financial relationships with Zimmer Biomet Dental resulting from speaking engagements, consulting engagements and other retained services.



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