



The Ultimate  
Implant System

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  /medibrex

teetanium<sup>®</sup>  
*Trying is believing*

# Simplicity & Perfection

## Behind the teetanium® Prelude

Medibrex ensures the teetanium users the quality and the innovation they demand to effectuate the solutions of the most complex issues they face with clinically proven procedures.

Medibrex has the power to make long-term investments in products' development, steadily expand its distribution network and continuously maintain high volumes of inventory to provide its customers with adequate and customized service that is rarely matched in the medical industry.

Medibrex aims to deliver to the healthcare community products that enhance the quality of life and provide functional and financial value. We'll provide more broad-based solutions that address causes, not just symptoms.

Medibrex products will be in your neighborhood and all around the world. We will continue to provide the teetanium patients with the care they deserve regardless of how hard the industry challenges get.

Medibrex team of experts follows up with clinicians who work on the front line to further understand the barriers, they encounter and meet their needs with evidence-based solutions.

To achieve the dual goals of enhanced outcomes with saved time and cost, we study the critical clinical issues in order to design and test practical and adequate solutions.



Medibrex is a leading producer and worldwide distributor of a comprehensive Dental Implant system. The Medibrex products help dental professionals to serve patients' oral health care for generations to come.

Teetanium by Medibrex is the result of an in-depth and wide range of researches and studies that will serve the general public. At Medibrex we pride ourselves in tailoring our services to the needs of our valuable customers by providing them consistent precision instruments, targeted tools and exclusive components.

The Teetanium® wide range of products and solutions are characterized by an ideal number of system components that are practically easy and efficient. The criteria of the Teetanium® conical and straight implants allow both the dental professionals and the patients to enjoy the benefits of the system.

Medibrex parent company, Librex Holding, Inc., founded in 1987, designs, develops, manufactures and markets healthcare and home purification products, operating in more than 48 countries around the world.

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# It's in the Details



## The teetanium® TYPES: Overview

The Teetanium® Dental Implant System presents two implant body types.

A cylindrical body shape named "Straight", and a tapered body shape named "Conical".

Both are bone level implant that can be placed with one simple surgical kit. Teetanium® implants were subject to advanced researches by the Medibrex team of experts who deployed their expertise to optimize the fulfillment of the basic biological standards in implant dentistry.

Teetanium® implants biomechanical design helps to attain the most favorable prime stability with an impeccable safeguarding of the crestal bone and a preservation of neighboring soft tissues.

Teetanium® implants are suitable for all surgical conditions. Although, they support general and particular esthetic indications. The implant's treated rough surface spreads to the bottom of the implant where the platform is switched inwards. Same internal connection in both implants. A simple color coding for drills and implants.

## STRAIGHT Implant

Available in 5 diameters:

Ø3,3 mm, Ø3,7mm, Ø4,2mm, Ø4,9mm, and Ø5,7 mm.

Ref. Implant	Diameter
Tis33085	3.3 x 8,5mm
Tis33100	3.3 x 10,0mm
Tis33115	3.3 x 11,5mm
Tis33130	3.3 x 13,0mm
Tis33145	3.3 x 14,5mm
Tis37085	3.7 x 8,5mm
Tis37100	3.7 x 10,0mm
Tis37115	3.7 x 11,5mm
Tis37130	3.7 x 13,0mm
Tis37145	3.7 x 14,5mm
Tis37160	3.7 x 16,0mm
Tis42085	4.2 x 8,50mm
Tis42100	4.2 x 10,0mm
Tis42115	4.2 x 11,5mm
Tis42130	4.2 x 13,0mm
Tis42145	4.2 x 14,5mm
Tis42160	4.2 x 16,0mm
Tis49085	4.9 x 8,50mm
Tis49100	4.9 x 10,0mm
Tis49115	4.9 x 11,5mm
Tis49130	4.9 x 13,0mm
Tis57085	5.7 x 8,50mm
Tis57100	5.7 x 10,0mm
Tis57115	5.7 x 11,5mm
Tis57130	5.7 x 13,0mm

## CONICAL Implant

Available in 4 diameters:

Ø3,7mm, Ø4,2mm, Ø4,9mm, and Ø5,7mm.

Conical Teetanium® functional design makes this implant principally appropriate for immediate or quick implantation after loss or removal of natural teeth. Tapered Teetanium® implant assures, through its wide dimensions range, an incomparable primary stability in all bone types.

Ref. Implant	Diameter
Tic37085	3.7 x 8,5mm
Tic37100	3.7 x 10,0mm
Tic37115	3.7 x 11,5mm
Tic37130	3.7 x 13,0mm
Tic37145	3.7 x 14,5mm
Tic37160	3.7 x 16,0mm
Tic42085	4.2 x 8,50mm
Tic42100	4.2 x 10,0mm
Tic42115	4.2 x 11,5mm
Tic42130	4.2 x 13,0mm
Tic42145	4.2 x 14,5mm
Tic42160	4.2 x 16,0mm
Tic49085	4,9 x 8,50mm
Tic49100	4,9 x 10,0mm
Tic49115	4,9 x 11,5mm
Tic49130	4,9 x 13,0mm
Tic57085	5,7 x 8,50mm
Tic57100	5,7 x 10,0mm
Tic57115	5,7 x 11,5mm
Tic57130	5,7 x 13,0mm

# Distinctive & Universal Connection

## The teetanium® Abutment CONNECTION

### Teetanium® Universal: Cone & Hexagon connection

The Teetanium® internal hexagon and cone connection is the design of choice for secure mechanical locking of prosthetic parts.

The Teetanium® one-size connection is available for all Teetanium® implant diameters except the Ø3,3mm.

The adequate friction of the Teetanium® connection, prevents any abutment loosening in all circumstances and presents enormous enhanced functionality compared to traditional external connections.



# User-friendliness & Accuracy

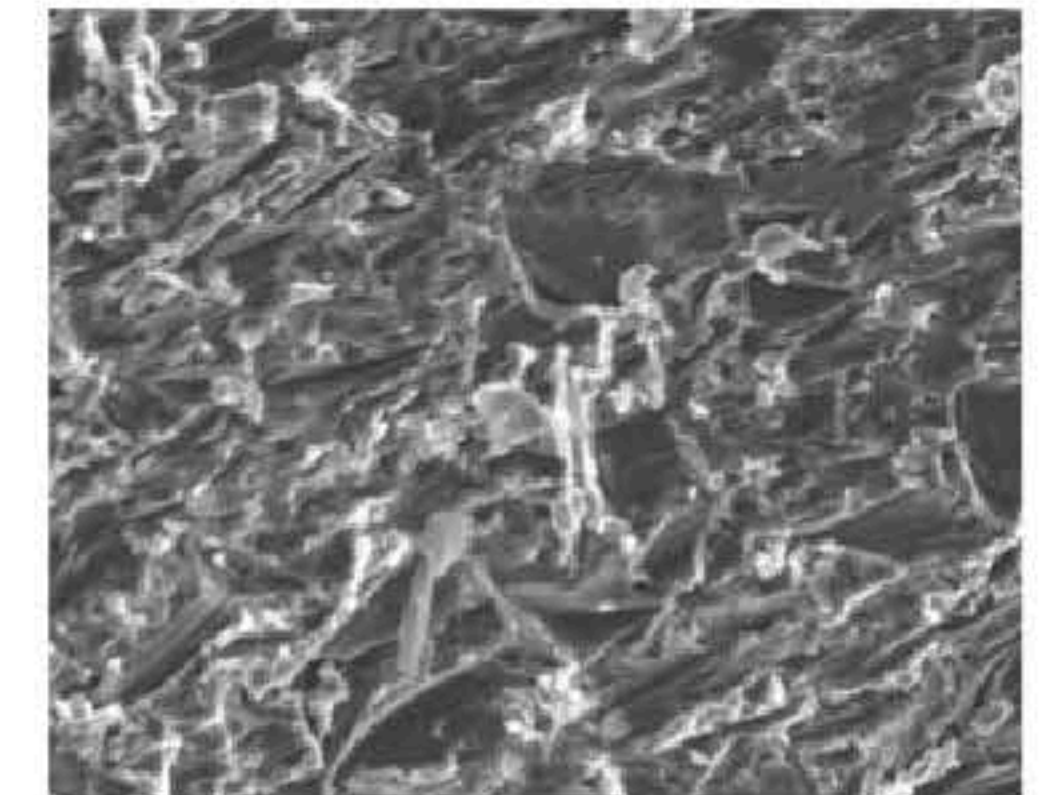
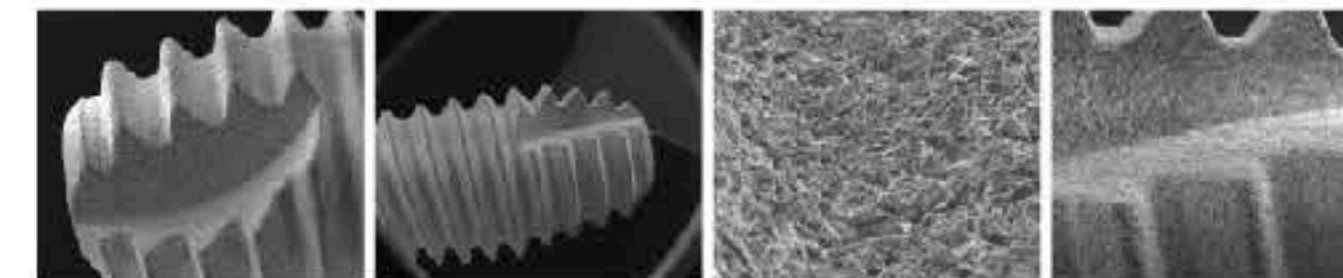
## The teetanium® SURFACE

The Teetanium® integross® rough surface has a clinical proven success not only for an optimum osseointegration, but also the development of a biological sealing.

The treatment of integross® starts with a blasting technique that generates a macro-roughness on the titanium surface to favor its osseointegration. This is followed by acid-etching that superposes a micro-roughness promoting cell differentiation and leading to augmented expression of osteoblasts.

### Integross® Surface by SEM:

(scanning electron microscopy)



The consequential structure constitute the ultimate configuration for cell attachment and improved new bone formation. The exclusive modification of the surface is also a key aspect to optimal biological sealing and contributes to long-lasting implant fixation.

# The teetanium® Surgical KIT

- Surgical Drills shared for both implant shapes in a single box
- 3 Depth indicators
- Screwdrivers: 2 manual drivers, 1 driver for contra-angle and driver for wrench
- First Surgical Drills with adjustable stoppers
- Short and long, manual and mechanical adapters
- Torque wrench for implant manual insertion and prosthetic torque application

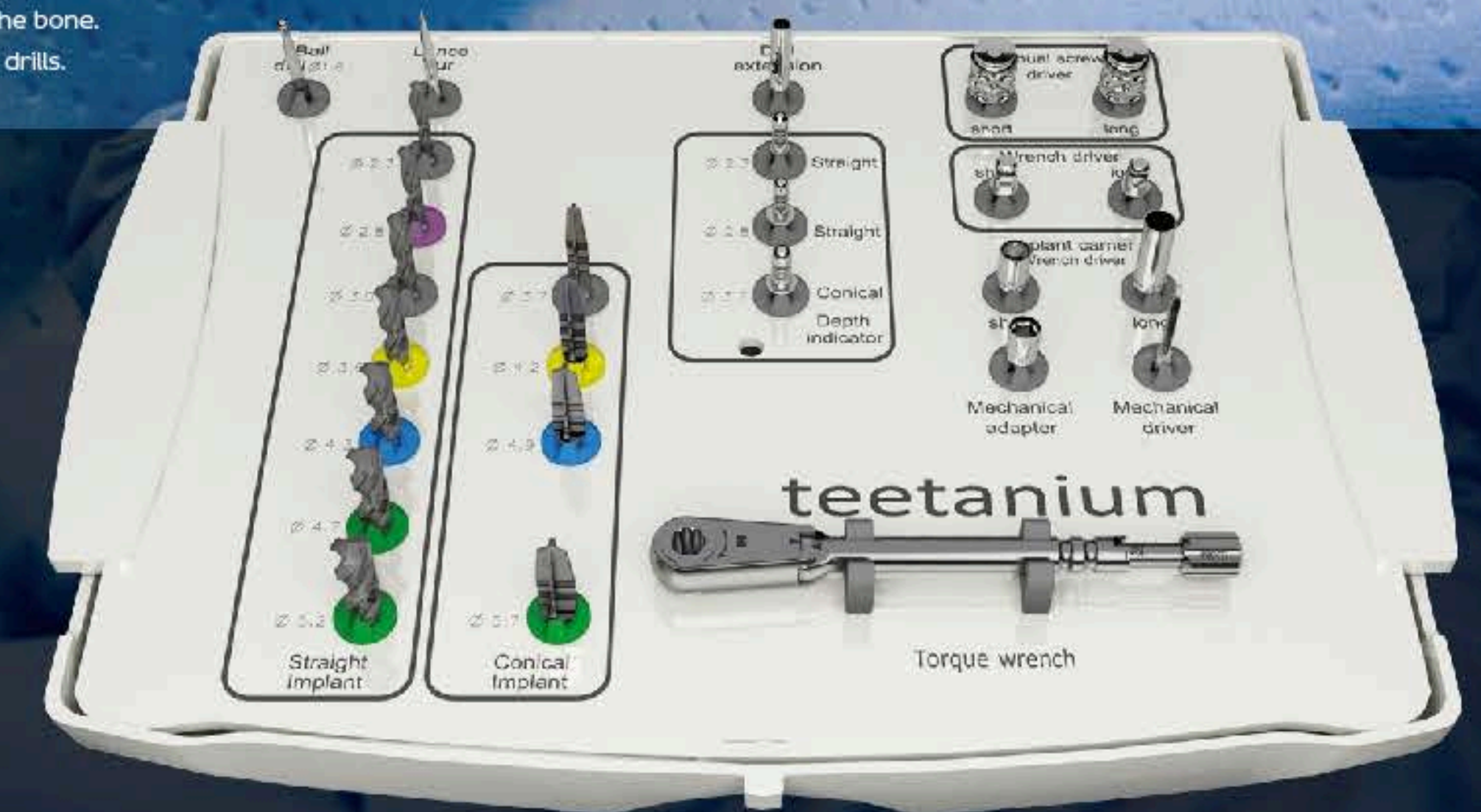


# Simple & Unique Kit

Special, sharp and constantly irrigated instruments should be used when preparing the osseous bed. The specific surgical sequence for the insertion of each Implant should be carried out as set forth in this surgical procedure, and at the speeds recommended therein. Otherwise, there may be excessive forces in the insertion of the Implant--greater than 50 Ncm-- exceeding the resistance of the bone and causing damage to the Implant and its connection, cold soldering of the Implant with the carrier, necrosis and bone fracture, etc.

During the surgical preparation of the osseous bed of the Implant, the following must be borne in mind:

- Apply abundant external cooling with sterile water or NaCl solution, pre-cooled to 5°C.
- Use drills in ascending order of their diameter.
- Apply gentle, intermittent pressure to the bone.
- Do not exceed the indicated speeds for drills.



Lance bur	850 rpm
Intermediate Drill	850 rpm
Final drill for implant 3.3	650 rpm
Final drill for implant 3.7	650 rpm
Final drill for implant 4.2	650 rpm
Final drill for implant 4.9	650 rpm
Intermediate Drill	650 rpm
Final drill for implant 5.7	650 rpm

## The Surgery

Manufactured with heavy-duty material, Teetanium® drills are definite to each implant dimension. Their leading-edge geometry guarantees an exceptional cutting performance. The complete arrangement of drills is laser-marked and has a corresponding adjustable depth stop to ensure a controllable and proper implant bed depth. Improved perceptibility is safeguarded by the matted exterior of the drills that inhibits any light reflection. A harmonized color-coded sequence of the drilling protocol for both straight and conical implants in one surgical cassette. Up to 35Ncm adjustable and lockable torque wrench. Mechanical and manual Implant insertion options. Taps for final implant bed preparation in hard bone class 1 and 2.



# Prosthetic COMPONENTS & TOOLS

Titanium implants are complemented by a range of standard and custom prosthetic components (abutments), which connect the implant to the crown of the replacement tooth.

Medibrex supplies the corresponding precision instruments, guided surgery tools and handling components.

## Advantages

- All abutment bodies have highly precise end design. In addition to the stable and rotation-resistant internal hexagon connection, exceptional transmission of energy and torque is possible thanks to the cone geometry.
- Cemented and screw-retained crown and bridge restorations are available. Bar restorations are also possible. Where the situation requires, 15° and 25° angled abutments are available.
- The connection conical sides are loaded only when the abutment is placed. They are not engaged by the healing abutments or impression-taking accessories.

# Quality, Reliability & Innovation

STRAIGHT DRILLABLE ABUTMENTS



With 3 collar heights:  
1, 2, 3mm  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7

CASTABLE ABUTMENTS



Castable non-rotatory for Abutment  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7  
Castable rotatory Abutment  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7

STRAIGHT SCREWED ABUTMENTS



With 3 collar heights:  
1, 2, 4mm  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7

HEALING ABUTMENTS



With 3 collar heights:  
3, 5, 7mm  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7

ANGLED ABUTMENTS



Angled abutment 25°  
ø3.3 (Cementable)  
ø3.7 / ø4.2 (Cementable)  
Angled abutment 15°  
ø3.3 (Cementable)  
ø3.7 / ø4.2 (Cement)  
Angled abutment 25°  
ø3.3 (Screwed)  
ø3.7 / ø4.2 (Screwed)  
Angled abutment 15°  
ø3.3 (Screwed)  
ø3.7 / ø4.2 (Screwed)

BALL ABUTMENTS



With 3 collar heights:  
1, 2, 3mm  
ø3.7 / ø4.2

IMPRESSION TRANSFERS



Impression transfer direct Implant closed - tray with screw  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7  
Impression transfer direct Implant open - tray with screw  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7

IMPLANT ANALOGS



Implant Analog ø3.3 / ø3.7 / ø4.2 / ø4.9 / ø5.7

PROVISIONAL COPINGS



Provisional Coping rotatory Immediate loading (Titanium)  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7  
Provisional Coping non-rotatory Immediate loading (Titanium)  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7  
Provisional rotatory Immediate loading (Plastic)  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7  
Provisional Non-rotatory Immediate loading (Plastic)  
ø3.3  
ø3.7 / ø4.2 / ø4.9 / ø5.7

# Scientific Research

The medibrex scientific department was lead by the outcomes of comparative scientific researches published and supported by the most recognized implantologists and professionals of the last 25 years. Moreover, multiple objective studies are continuously in progress to confirm the success of the TEETANIUM system designs and innovation. These scientific studies will always be published and shared over the recognized public biomedical references and the Medibrex official website ([www.medibrex.com](http://www.medibrex.com)) proving the 99% success rate of the teetanium implants with delayed loading techniques and the 97.2% success rate with immediate loading protocols.

## Teetanium® connection

### Mechanical behavior:

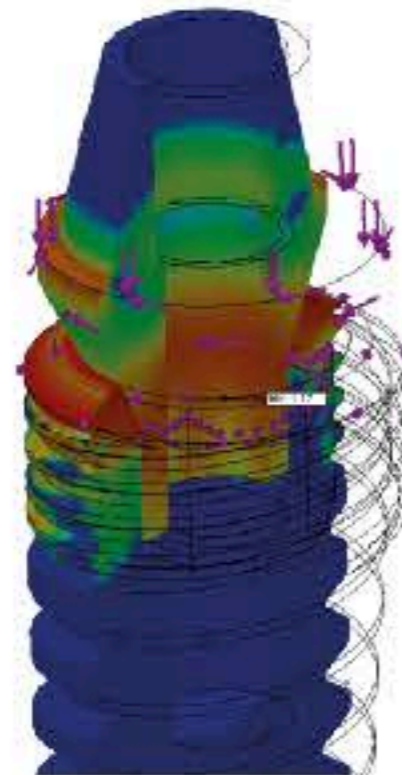
#### Tests performed: Mechanical test of fatigue life.

The experimental tests of fatigue life were performed by means of a set of MTS-Bionix mechanical tests. Fatigue rupture may occur in structures subjected to fluctuating dynamic tensions. Study conditions were based on FDA standards, and the implants underwent a cyclic compression load of between 10 N and 250 N, with a 20 Hz frequency, 0° to 30° angulations; they were immersed in saline solution at 37°.

**RESULTS:** The results obtained reveal a fatigue life resistance of more than 10 million load cycles for the most severe condition; -30° angulation with a 20 Hz frequency. Simulation according to the Finite Element Method, FEM.

Simulation with a three-dimensional model of the teetanium® implant and abutment set applying two types of loads similar to the experimental fatigue life study (200 N axial load and 200 N axial load with 25 N sharp lateral load).

**RESULTS:** For the axial load: The maximum load on the implant neck with an impact of 0.01 seconds at 200 N on the structure is 50 MPa. This represents 18% of the maximum load the structure is capable of supporting permanently (275 MPa). For the sharper axial load: The results reveal that the teetanium® connection reduces the loads on the implant neck. Tensions are less than 20 MPa.



## Integross® surface

The Biological research behind the Integross® surface aimed to attain a reliable and guaranteed clinical success.

Increased implant surface. Macroporosity, microporosity, nanoporosity.

• This facilitates adhesion and fixation of initial proteins, thereby favoring excellent blood clot stability and surface biological preparation.

- This facilitates cell proliferation and maturation.
- This improves extracellular matrix stability, bone repair function, mineralization, and new bone formation.
- This reduces residual tensions.

### Thickness increase of the Titanium Oxide (TiO2) surface:

- This minimizes the release of metallic ions.
- This lowers the likelihood of bonds with unwanted surface elements thanks to its higher saturation of oxygen/titanium bonds (stoichiometric TiO2).
- This leads to greater wettability.

### Bone mimicry:

- Morphology similar to the trabecular bone.

### During the bone recovery and adhesion process, Integross® improves the response in:

- Bone repair: Integross® accelerates the setting preparation process for bone repair.
- Cellular function: Integross® increases matrix stability, thereby favoring cellular function and bone genesis.

### Biological sealing:

Recent studies confirm that connection stability and a diameter shorter than the prosthetic area with respect to the implant platform will more effectively preserve the mucosa and peri-implant tissue integrity. What affects the maintenance of peri-implant tissues is the union of the hemi desmosomes to the implant's untreated area. Hemi desmosomes in the connective tissue effectively bind to the titanium surface, since blood clots were produced and the biological healing mechanism was activated. During the load, whether immediate or delayed, this union will not be disrupted again because we work above the epithelium junction. The biological seal remains unaltered. This means that the mucosal height, essential for aesthetics, will remain stable over time, even in compromised patients.

# Color-Coding LABELS & SPECIFICATIONS

**Legend:**

- 3.3 mm (design Only)
- 3.7 mm
- 4.2 mm
- 4.9 mm
- 5.7 mm

**Box Labels and Features:**

- Social Networks
- Manufacturer: Medibrex
- Identification of Registry in accordance with guideline 93/42 EEC
- Lot Number: 147597
- Implant Type: teetanium (teetanium Implant Conical)
- Diameter: 3.7 mm
- Length: 10.0 mm
- Implant Type: teetanium by Medibrex
- REF TIC.37100
- Implant Implants Implants
- Implantat Implants
- LOT 147597
- Use by 2019-06
- Sterile Until Barcode
- US Federal law restricts this device to be sold by dentists or physicians.
- Do not reuse
- Do not sterilize
- Caution
- For Caution Instructions Consult accompanying Documents
- Do Not Resterilize
- Sterilization with Gamma Radiation
- Storage Conditions
- Discard if the Package is Damaged
- Included Inside
- Color-Coding following the Implant Diameter
- teetanium by Medibrex
- C-series 3.7 mm

White Box for STRAIGHT Implant

Black Box for CONICAL Implant

# General GUIDELINES

The instructions for use of the teetanium products, provided by the manufacturer ("Medibrex"), must be applied properly by the practitioners.

Appropriate knowledge in the handling of the teetanium dental implants or other teetanium products is a must.

The responsibility of the practitioners is to use the device properly and to determine the patient needs according to his situation.

The teetanium products must be used only with their original components and accessories provided by Medibrex S.A.L or official distributors. The use of non-original Teetanium products and its related accessories by the Distributor or Client, will immediately terminate the warranty of the product(s), and will release Medibrex from all responsibilities.

For detailed instructions on the teetanium products, contact your Medibrex representative.

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