

Unitite

The future is now



 **S.I.N.**
Implant System



REDEFINING CONCEPTS IN IMPLANTODOLOGY

From the synergy between the exclusive **macrogeometry** and the most advanced **surface nanoactivation** emerges the **Unitite®**, an implant line that has revolutionized the world implantology market due to its originality, innovation and high performance.

- **Exclusive HAnano surface:**

Developed in main universities in Sweden, this nanosurface significantly accelerates osseointegration.



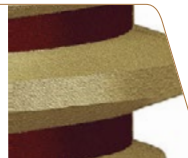
- **Healing Chambers:**

Only the external threads touches the bone tissue, while the internal threads are kept apart, promoting a very high quality hybrid healing.



- **Accelerated Healing process:**

Increased hydrophilicity generated by a very thin layer of hydroxyapatite which enhances the activity of proteins involved in the osseointegration process.



- **Distinctive Hybrid Macrogeometry:**

Accuracy of the drilling system and the design of the external threads give high stability, and minimize the compression of the healing bone tissue.

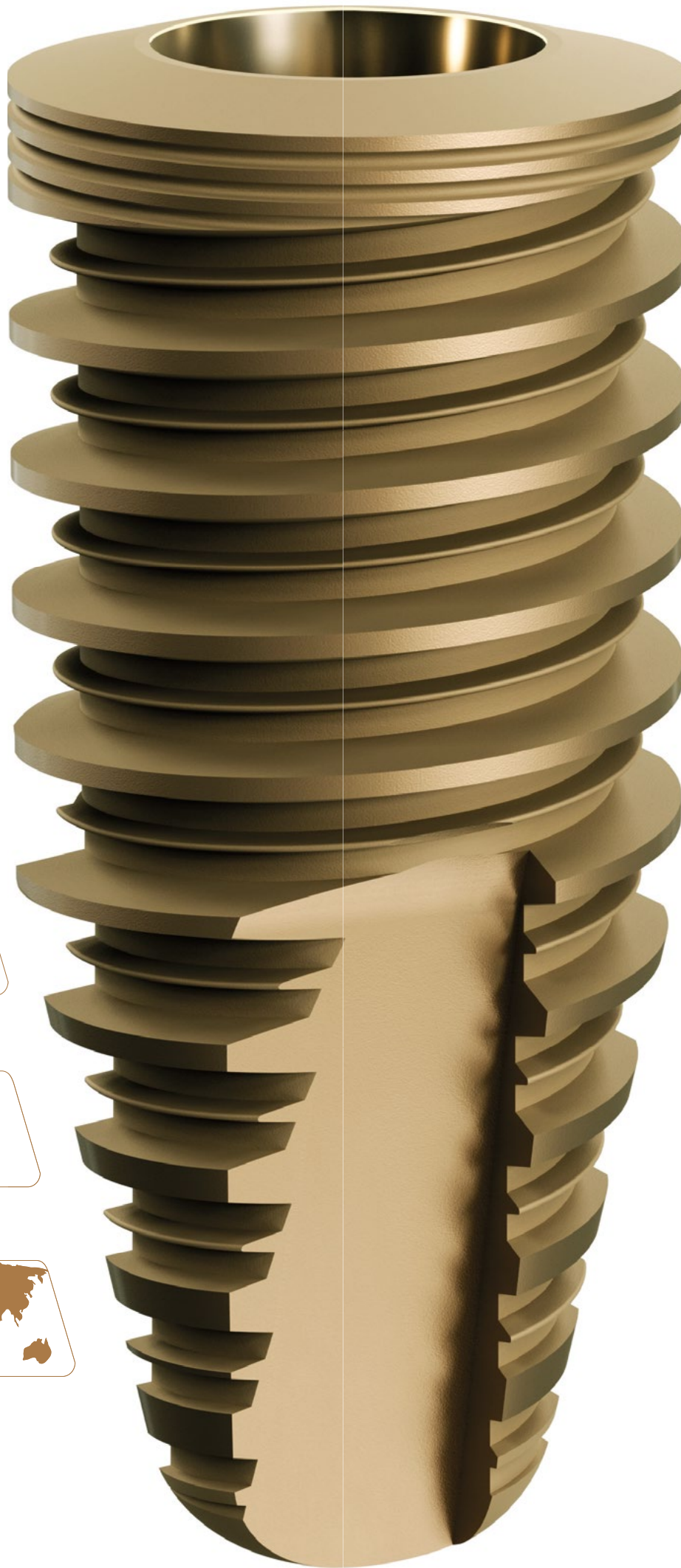


- **Scientific Evidence:**

More than 10 years of research and development with the renowned scientists in at leading universities worldwide.

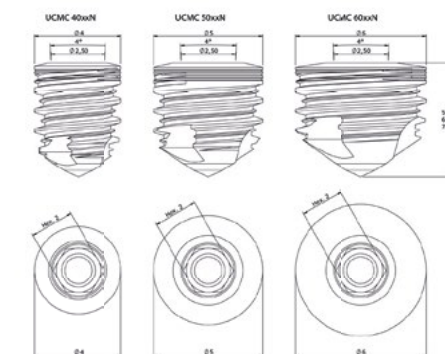
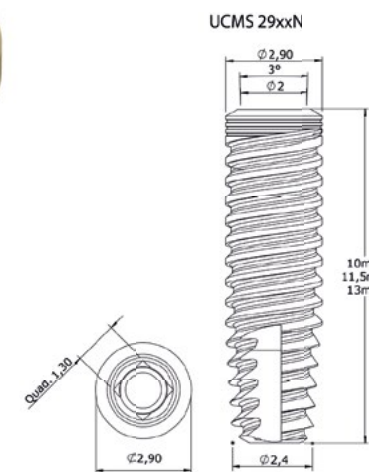
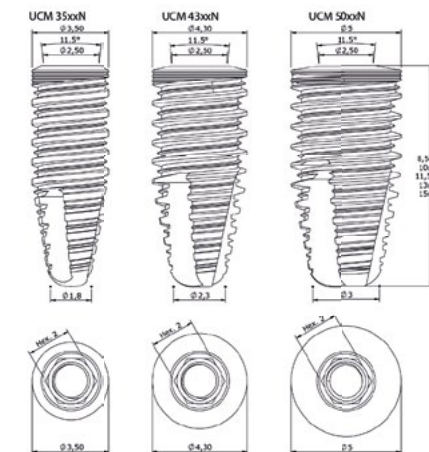


*See bibliographic reference.



ONE CONCEPT, SEVERAL POSSIBILITIES.

**TWO IMPLANT LINES TO MEET
THE MOST DIVERSE NEEDS.**



PRIME

Recommended for immediate, early or late loading: Unitite® has been designed for lasting and aesthetic solutions.

SLIM

Provides rehabilitation in narrow areas and limited interdental spaces, as well as upper lateral incisors and lower incisors areas.

COMPACT

Indicated for reduced bone availability in the upper and lower jaw.

UNITITE® SURGICAL KIT

A SINGLE KIT FOR THE ENTIRE UNITITE® LINE

To make your daily routine even more convenient and efficient, we have developed the Unitite single surgical kit for installing the full line: Unitite Slim and Compact.

Unique drills with DLC (Diamond Like Carbon):

- › Less bone heating.
- › Increased durability.
- › High cutting power.
- › Sharper angle.



UNITITE® SAFE DRILL KIT

MAKING YOUR SURGERIES SIMPLER AND PRACTICAL



INSTALLATION OF THE UNITITE® IMPLANTS SHOULD ONLY BE DONE WITH THE UNITITE® SURGICAL KIT.

Unitite® PLUS HAnano Surface

Hydroxyapatite (HA), which is the main mineral present in the natural bone structure, when applied on the surface of nanostructured titanium implants, forms a homogeneous and stable coating functioning as a scar catalyst that speeds up osseointegration when compared to conventional surfaces.

From 2005 on, Plus HAnano® surfaces have been developed by researchers from leading universities in Gothenburg (Sweden). Scientists from several countries have tested and approved its effectiveness, the results of which have been published in dozens of articles in world-renowned scientific journals.

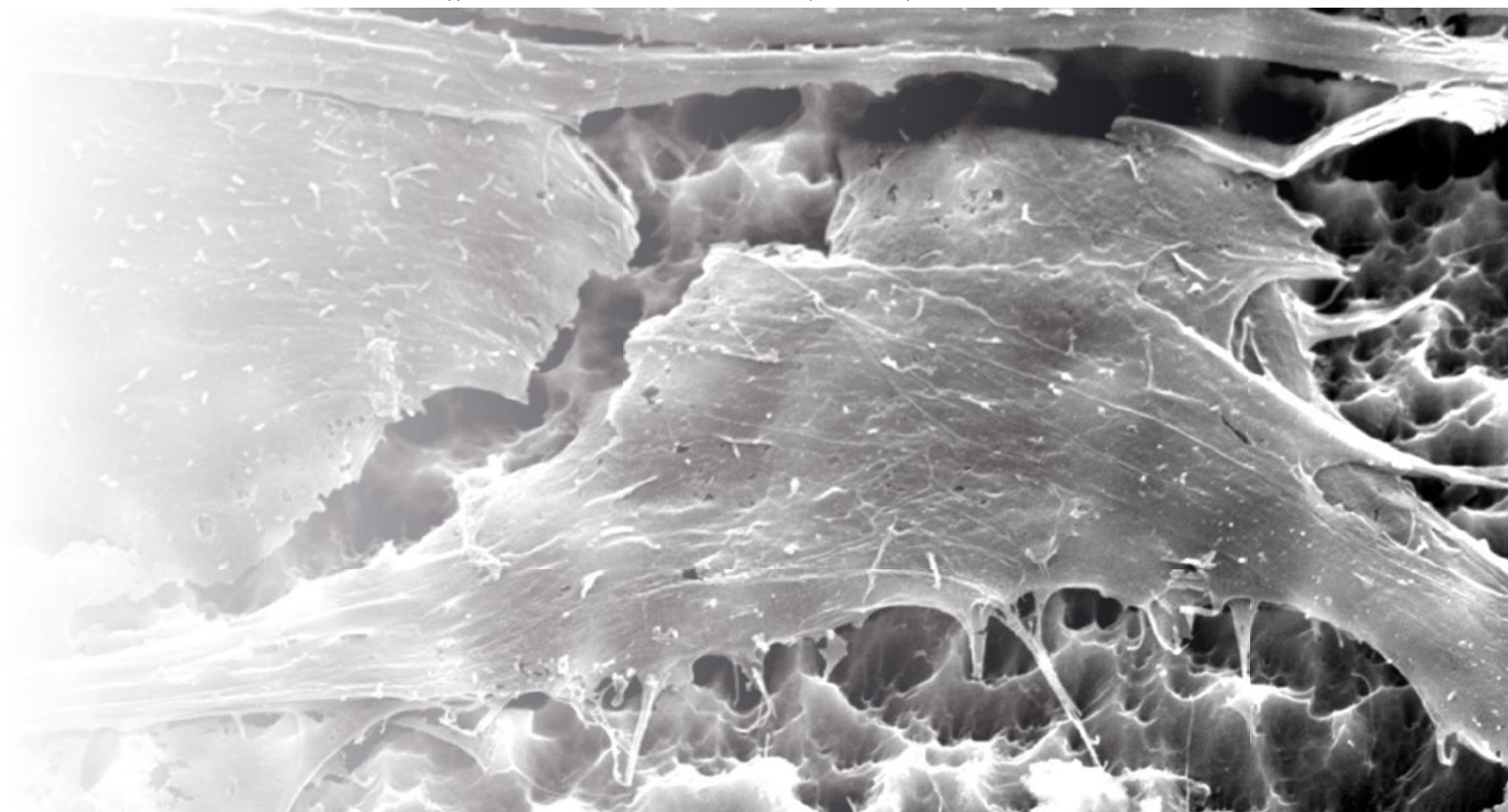
The Plus HAnano® coating is formed by hydroxyapatite nanocrystals, with size and shape similar to those of human bone, sintered on a micro rough titanium measuring 20 nm thick that promotes a change in surface energy, increasing the hydrophilicity and providing a substrate that stimulates a greater osteoblasts multiplication.

The Plus HAnano® present on the surface of the S.I.N. implants has shown an improvement in scar response in molecular tests of signal transduction, where the proteins involved in the scarring process recorded a substantial increase in concentration, presenting the coating positive effect on the interaction with the pre-osteoblastic cells.

Likewise, there was an increase in the concentration of important osteogenic markers, such as alkaline phosphatase and osteocalcin, in clear signalling of the mineralization process acceleration.

Among the most relevant aspects, with the greatest clinical significance, is the bone mechanical quality which is formed around this highly hydrophilic Plus surface, which derives from the resulting ionic potential of the Plus HAnano®.

Scanning Electron Microscopy demonstrating osteoblastic cell on HAnano surface. Courtesy: Cavalcanti JH, Tanaka M, Bezerra FJ, CBPF RJ.



RESULTS OF CLINICAL EVIDENCE IN VITROS TESTS, IN VIVO TESTS AND CLINICAL STUDIES

+50 clinical consultants and researchers

tested Unitite® prior to launch, installing over

2.000 implants



High success



rate recorded a **0.68% loss** compared to its sale in its first year.

SUCCESSFULLY TESTED:
94% of the buccal bone volume found in the evaluations.

Source: Clinical Oral Implants Research
Oral and lingual bone level changes after immediate implantation of four implant surfaces: a study in dogs.
Bonfante A., Estevam



In short- and long-term clinical evaluations at leading universities worldwide, Unitite® had the lowest **marginal bone loss** compared to major international premium implants.

SCIENTIFIC PUBLICATIONS

The positive and superior results of HAnano® have been evaluated and proven by numerous scientific studies in several recognized universities and research institutions worldwide.

Check out some of them in the QR Codes below.



NANO HYDROXYAPATITE STRUCTURES INFLUENCE EARLY BONE FORMATION.

Nano hydroxyapatite structures influence early bone formation.

Meirelles L, Arvidsson A, Andersson M, Kjellin P, Albrektsson T, Wennerberg A.

Journal of Biomedical Materials Research Part A Volume 87A, Issue 2, 2008, pp. 299-307.



THE EFFECT OF CHEMICAL AND NANOTOPOGRAPHICAL MODIFICATIONS ON THE EARLY STAGES OF OSSEOINTEGRATION.

The effect of chemical and nanotopographical modifications on the early stages of osseointegration.

Meirelles L, Currie F, Jacobsson M, Albrektsson T, Wennerberg A.

The International Journal of Oral and Maxillofacial Implants Volume 23, Issue 4, 2008, pp. 641-647.



NANO HYDROXYAPATITE-COATED IMPLANTS IMPROVE BONE NANOMECHANICAL PROPERTIES.

Nano hydroxyapatite-coated implants improve bone nanomechanical properties.

Jimbo R, Coelho PG, Bryington M, Baldassarri M, Tovar N, Currie F, Hayashi M, Janal MN, Andersson M,

Ono D, Vandeweghe S, Wennerberg.


A.J Dent Res. 2012;91(12):1172-7.

SCIENTIFIC PUBLICATIONS

- › Shunmugasamy VC, et al. Influence of clinically relevant factors on the immediate biomechanical surrounding for a series of dental implant designs. Journal of Biomechanical Engineering 2011; 133: 031005-1 - 031005-9
- › Coelho PG, Granjeiro JM, Romanos GE, Suzuki M, Silva NR, Cardaropoli G, et al. Basic research methods and current trends of dental implants surfaces. J Biomed Mater Res B Appl Biomater 2009; 88(2): 579-96.
- › Meirelles L, et al: Nano hydroxyapatite structures influence early bone formation. J Biomed Mater Res A. 2008 Nov; 87(2): 299-307
- › Jimbo R, Coelho PG, Bryington M, Baldassarri M, Tovar N, Currie F, et al. Nano hydroxyapatite coated implants improve bone nanomechanical properties. J Dent Res 2012; 91(12): 1172-7.
- › Pessoa RS, Et al. Avaliação da estabilidade dos tecidos duros e moles em implantes imediatos com carga imediata em área estética: estudo clínico. Dental Press Implantol. 2015 Apr-Jun; 9(2): 100-9
- › Arvidsson A, Franke-Stenport V, Andersson M, Kjellin P, Sul YT, Wennerberg A. Formation of calcium phosphates on titanium implants with four different bioactive surface preparations. An in vitro study. J Mater Sci: Mater Med 2007; 18: 1945-1954
- › Bezerra FJB, Pessoa RS, Zambuzzi WF. Carregamento funcional imediato ou precoce de implantes com câmara de cicatrização e nano-superfície: estudo clínico prospectivo longitudinal. Innov Implant J, Biomater Esthet 2014; 9 (2/3): 13-17
- › Barkarm S, Wennerberg A, Hoffman M, Kjellin P, Breiding K, Handa P, Stenport V. 2013.
- › Coelho PG, Marin C, Granato R, Bonfante EA, Lima CP, Oliveira S, Ehrenfest DMD, Suzuki M. Alveolar Buccal Bone Maintenance After Immediate Implantation with a Surgical Flap Approach: A Study in Dogs. The International Journal of Periodontics & Restorative Dentistry 2011; 31: e80-e86
- › Nanohydroxyapatite-coated PEEK implants: A pilot study in rabbit bone. J Biomed Mater Res A 2013; 101A: 465-471.




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