NANO PRIME

DENTAL IMPLANTS

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The Nano-Prime dental implant system is a product of collaborative synergy with leading European scientists, including experts in metallophysics, biomechanics, electrochemistry, biology, nanotechnology and dentistry.

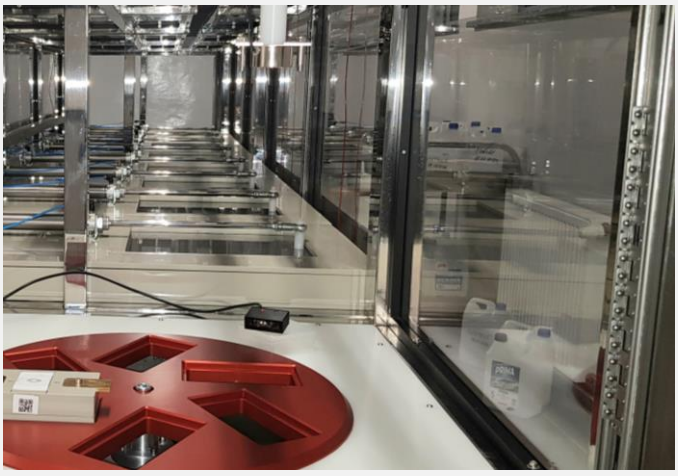
Our product, cultivated through the sustained efforts of numerous European universities, has evolved beyond a simple dental implant system. Novel Nano-Prime concept represents a fusion of cutting-edge technology, a profound comprehension of biological processes, and an unceasing pursuit of innovative solutions.

The development of the novel NanoPrime system comes from several prestigious European research initiatives:

- HORIZON 2020
- M-ERA.NET Call 2020
- Narodowe Centrum Badań i Rozwoju

Our development team hopes that their efforts will significantly contribute to the well-being of your patients.

ISO 13485:2016



Certyfikat

Niniejszy certyfikat został przyznany

Nano Prime Sp. z o.o.

Metalowców 25, 39-200 Dębica, Polska

w celu potwierdzenia zgodności Systemu Zarządzania Jakością z normą

ISO 13485:2016

Zakres działalności objęty niniejszym certyfikatem został określony poniżej

Kontraktowa produkcja niesterylnych implantów stomatologicznych, niesterylnych elementów protetycznych, w tym wykonywanych metodą elektrospiningu, implantów do osteosyntezy oraz instrumentów chirurgicznych

Numer certyfikatu 211743/A/0001/UK/Po

Data wydania cyklu certyfikatu	Numer wydania	Data ważności certyfikatu	Cykl certyfikatu
15 grudnia 2023	1	14 grudnia 2026	1
Data weryfikacji	Numer weryfikacji	Pierwsza data wydania	Numer normy
15 grudnia 2023	0	15 grudnia 2023	nd

Wyjaśnienie powyższych danych można znaleźć pod adresem http://www.urs-holdings.com/logos-and-regulations

Wydany przez

Mukesh Singhal - W imieniu Menedżera Schematu

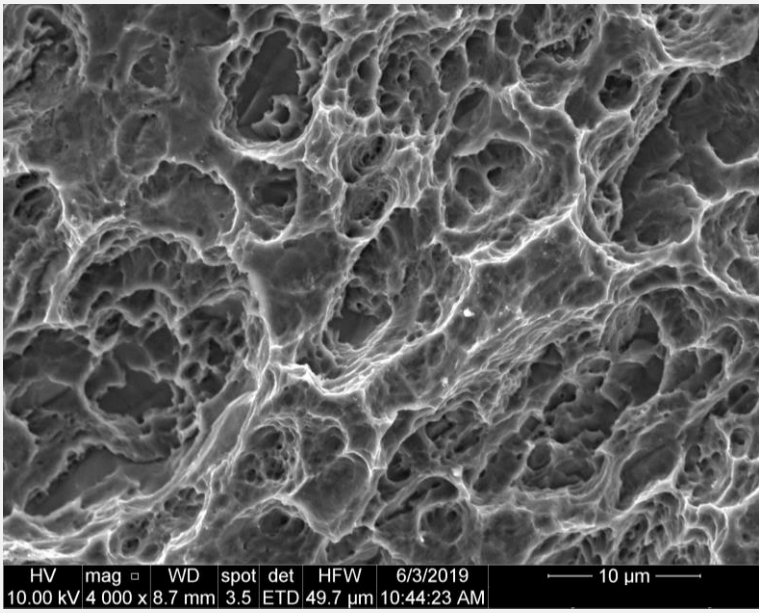
DENTAL IMPLANT WITH SLA SURFACE

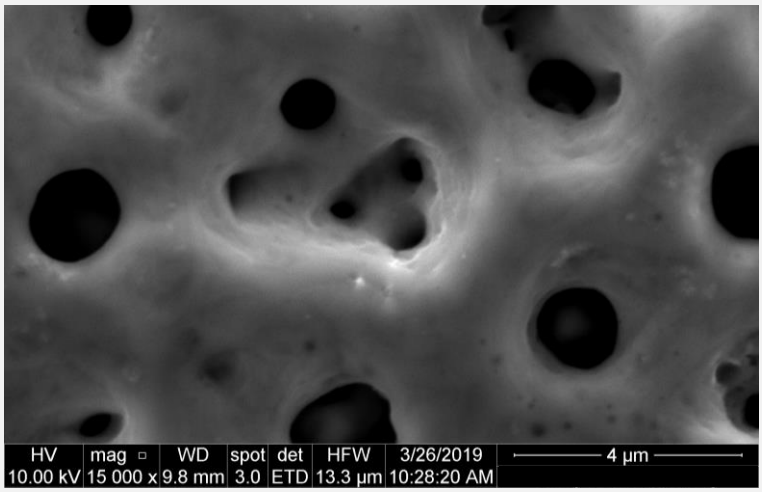
The success of implant integration with bone is critically influenced by the surface of the implant, as it directly interacts with the bone. The rate and quality of osseointegration are contingent upon the surface characteristics.

Advantages of our SLA surfaces:

- Large contact area of the implant with the bone
- Chemical purity of the surface
- Faster and more efficient implant osseointegration process

Our SLA surface has a lacunarity within 50 microns and porosity within 9-12 microns, with no foreign impurities. Such precision in surface specification facilitates optimal adhesion and proliferation of bone cells, thereby ensuring superior implant integration.





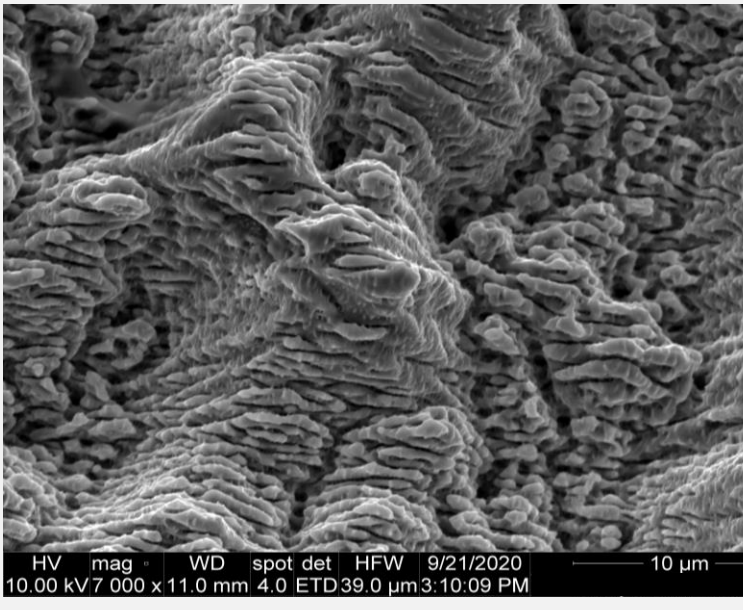
DENTAL IMPLANT WITH PEO SURFACE

Plasma electrolytic oxidation (PEO)

- The application of PEO coating for surface modification provides better adhesion of osteoblasts to the implant surface compared to the SLA surface.
- The presence of over 9%!!! of Ca ions on the PEO surface provides additional stimuli for cell adhesion and proliferation.
- PEO is the main factor influencing cell adhesion and proliferation..

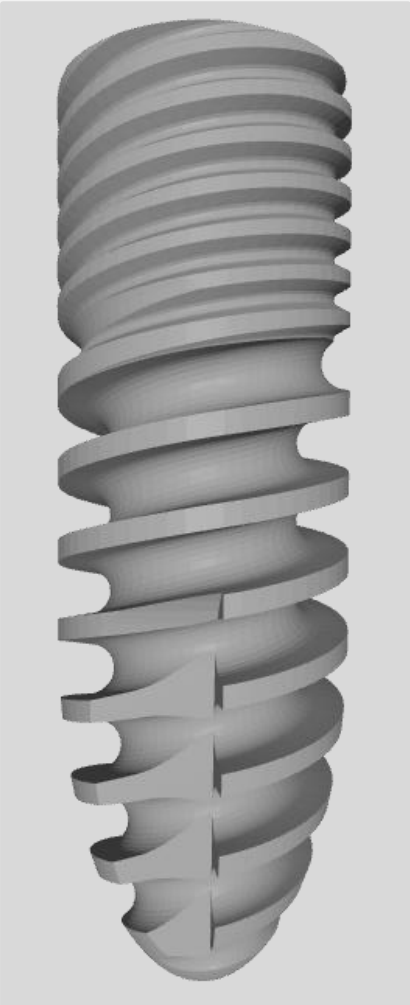
DENTAL IMPLANT WITH A MESOPOROUS SURFACE (PEO+LIPSS)

- Surface modification by laser ablation leads to increased adhesion of both osteoblasts and fibroblasts. Enhanced cell adhesion occurs due to the formation of bonds between the nanostructured surface and the cell membrane.
- Fibroblasts exhibit a greater affinity for the nano-modified surface, resulting in a higher percentage of adhesion and accelerated proliferation compared to osteoblastic cell lines.
- This method is used for modifying the intragingival portion of the implant structure, as well as in combination with PEO on the intraosseous part of the implant.



FORTIS-T

recommended for working with bone types 1-2 according to Misch.



Three types of platforms

- Standard - Hex-2,4 + cone 6°
- Narrow - Hex-2,0 + cone 6°
- Hex-2,4

Design

Dual-thread micro thread and single-thread macro thread with a uniform pitch provide adaptive formation of the bone and implant bed relative to all layers of bone and facilitate implant installation.

Implant body

It replicates the anatomical shape of the tooth root (rotational paraboloid) and provides better initial stability. It alters the direction of stress between the implant and cortical bone, transferring the load to cancellous bone, thereby reducing the risk of bone tissue loss in the cortical layer.

The surface of the intrabony part

It is possible to perform in three variations: SLA, PEO, LIPSS. The micro- and nanoporosity formed in this process ensures high adhesion and proliferation of bone cells.

The top portion

The top portion is unified for all sizes, 2 mm in height.

D ↓ (the diameter of the neck)	L → (the length)	6 mm	8 mm	10 mm	12 mm	14 mm	16 mm
4	Standard	100-004006	100-004008	100-004010	100-004012	100-004014	100-004016
4,5	Standard	100-004506	100-004508	100-004510	100-004512	100-004514	100-004516
5	Standard	100-005006	100-005008	100-005010	100-005012	100-005014	100-005016
3	Narrow	200-003006	200-003008	200-003010	200-003012	200-003014	200-003016
3,3	Narrow	200-003306	200-003308	200-003310	200-003312	200-003314	200-003316
3,7	Narrow	200-003706	200-003708	200-003710	200-003712	200-003714	200-003716
3,7	Hex	300-003706	300-003708	300-003710	300-003712	300-003714	300-003716
4	Hex	300-004006	300-004008	300-004010	300-004012	300-004014	300-004016
4,5	Hex	300-004506	300-004508	300-004510	300-004512	300-004514	300-004516
5	Hex	300-005006	300-005008	300-005010	300-005012	300-005014	300-005016

The implants are supplied with a cover screw

NP. 2,9x6mm
231-002906

SP 3,5x6mm:
131-003506

HP 3,4x4,2mm:
331-003442

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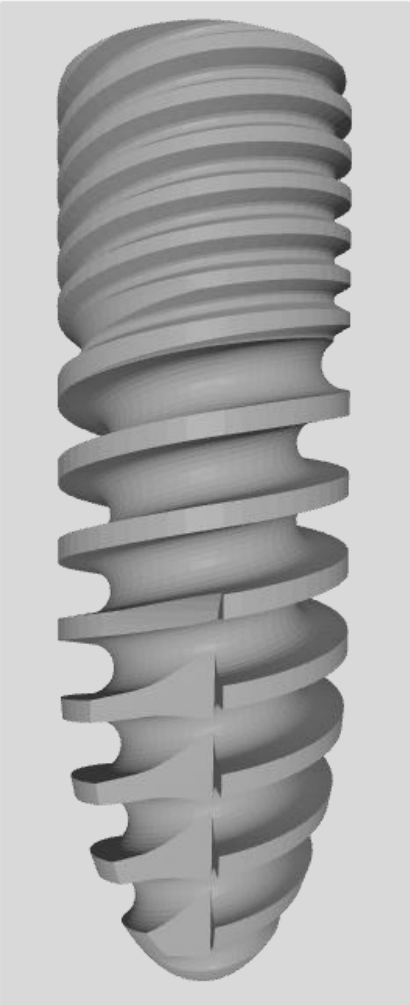
FORTIS-T+

recommended for working with bone types 3-4 according to Misch.



Three types of platforms

- Standard - Hex-2,4 + cone 6°
- Narrow - Hex-2,0 + cone 6°
- Hex-2,4

Design

The four-thread micro thread and two-thread macro thread with a unified pitch provide adaptive formation of the bone and implant bed relative to all layers of the bone, facilitating the implant's installation.

Implant body

It replicates the anatomical shape of the tooth root (rotational paraboloid) and provides better initial stability. It alters the direction of stress between the implant and cortical bone, transferring the load to cancellous bone, thereby reducing the risk of bone tissue loss in the cortical layer.

The surface of the intrabony part

It is possible to perform in three variations: SLA, PEO, LIPSS. The micro- and nanoporosity formed in this process ensures high adhesion and proliferation of bone cells.

The top portion

The top portion is unified for all sizes, 2 mm in height.

D ↓ (the diameter of the neck)	L → (the length)	6 mm	8 mm	10 mm	12 mm	14 mm	16 mm
4	Standard	100-004006+	100-004008+	100-004010+	100-004012+	100-004014+	100-004016+
4,5	Standard	100-004506+	100-004508+	100-004510+	100-004512+	100-004514+	100-004516+
5	Standard	100-005006+	100-005008+	100-005010+	100-005012+	100-005014+	100-005016+
3	Narrow	200-003006+	200-003008+	200-003010+	200-003012+	200-003014+	200-003016+
3,3	Narrow	200-003306+	200-003308+	200-003310+	200-003312+	200-003314+	200-003316+
3,7	Narrow	200-003706+	200-003708+	200-003710+	200-003712+	200-003714+	200-003716+
3,7	Hex	300-003706+	300-003708+	300-003710+	300-003712+	300-003714+	300-003716+
4	Hex	300-004006+	300-004008+	300-004010+	300-004012+	300-004014+	300-004016+
4,5	Hex	300-004506+	300-004508+	300-004510+	300-004512+	300-004514+	300-004516+
5	Hex	300-005006+	300-005008+	300-005010+	300-005012+	300-005014+	300-005016+

The implants are supplied with a cover screw

SP 3,5x6mm:
131-003506

NP. 2,9x6mm
231-002906

HP 3,4x4,2mm:
331-003442

GINGIVAL FORMERS

They reproduce the "emergence profile" according to the shape of the abutment's intragingival portion.

Standard

Narrow

Hex

D ↓ (the diameter of the neck)	H → (the height of the neck)	1 mm	2 mm	3 mm	4 mm	5 mm	6 mm	7 mm
4,5	Standard	140-004501	140-004502	140-004503	140-004504	140-004505	140-004506	140-004507
5,5	Standard	140-005501	140-005502	140-005503	140-005504	140-005505	140-005506	140-005507
6,5	Standard	140-006501	140-006502	140-006503	140-006504	140-006505	140-006506	140-006507
7,5	Standard	140-007501	140-007502	140-007503	140-007504	140-007505	140-007506	140-007507
8,5	Standard	140-008501	140-008502	140-008503	140-008503	140-008505	140-008506	140-008507
4	Narrow	240-004001	240-004002	240-004003	240-004004	240-004005	240-004006	240-004007
4,5	Narrow	240-004501	240-004502	240-004503	240-004504	240-004505	240-004506	240-004507
5,5	Narrow	240-005501	240-005502	240-005503	240-005504	240-005505	240-005506	240-005507
6,5	Narrow	240-006501	240-006502	240-006503	240-006504	240-006505	240-006506	240-006507
7,5	Narrow	240-007501	240-007502	240-007503	240-007504	240-007505	240-007506	240-007507
8,5	Narrow	240-008501	240-008502	240-008503	240-008503	240-008505	240-008506	240-008507
4,5	Hex	340-004501	340-004502	340-004503	340-004504	340-004505	340-004506	340-004507
5,5	Hex	340-005501	340-005502	340-005503	340-005504	340-005505	340-005506	340-005507
6,5	Hex	340-006501	340-006502	340-006503	340-006504	340-006505	340-006506	340-006507
7,5	Hex	340-007501	340-007502	340-007503	340-007504	340-007505	340-007506	340-007507
8,5	Hex	340-008501	340-008502	340-008503	340-008504	340-008505	340-008506	340-008507

STRAIGHT ABUTMENTS

Standard

The abutment is supplied with two screws:

SP 1,8x7,7mm: 130-002177

Narrow

The abutment is supplied with two screws:

NP. 1,6x7,9mm: 230-002179

Hex

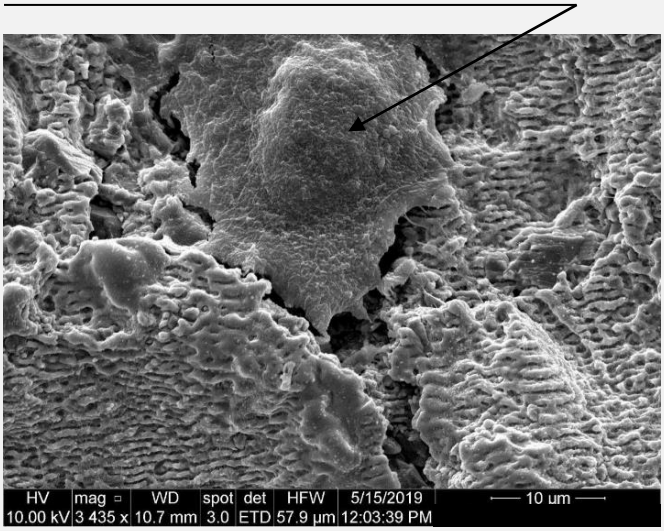
The abutment is supplied with two screws:

HP 1,8x7,7mm: 330-002177

D ↓ (the diameter of the neck)	H → (the height of the neck)	1 mm	2 mm	3 mm	4 mm
4,5	**Standard**	120-004501	120-004502	120-004503	120-004504
5,5	**Standard**	120-005501	120-005502	120-005503	120-005504
6,5	**Standard**	120-006501	120-006502	120-006503	120-006503
4,0	**Narrow**	220-004001	220-004002	220-004003	220-004004
4,5	**Narrow**	220-004501	220-004502	220-004503	220-004504
5,5	**Narrow**	220-005501	220-005502	220-005503	220-005504
4,5	**Hex**	320-004501	320-004502	320-004503	320-004504
5,5	**Hex**	320-005501	320-005502	320-005503	320-005504
6,5	**Hex**	320-006501	320-006502	320-006502	320-006504

Following the customization process, we can engineer a LIPSS (Laser-Induced Periodic Surface Structures) surface on the intragingival portion of the abutment. This innovative feature promotes fibrointegration in the targeted area, effectively creating a barrier that prevents the infiltration of microorganisms. This advancement not only enhances the stability and longevity of the implant but also significantly reduces the risk of infection, contributing to healthier oral environments

A single fibroblast fixed on the surface of the implant.



ANGULATED ABUTMENTS

Standard

The abutment is supplied with two screws:

SP 1,8x7,7mm: 130-002177

Narrow

The abutment is supplied with two screws:

NP. 1,6x7,9mm: 230-002179

Hex

The abutment is supplied with two screws:

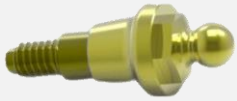
HP 1,8x7,7mm: 330-002177

angle of inclination ↓	H → (the height of the neck)	1 mm	2 mm	3 mm	4 mm
7	Standard	121-005501	121-005502	121-005503	121-005504
15	Standard	122-005501	122-005502	122-005503	122-005504
25	Standard	123-005501	123-005502	123-005503	123-005504
7	Narrow	221-005501	221-005502	221-005503	221-005504
15	Narrow	222-005501	222-005502	222-005503	222-005504
25	Narrow	223-005501	223-005502	223-005503	223-005504
7	Hex	321-005501	321-005502	321-005503	321-005504
15	Hex	322-005501	322-005502	322-005503	322-005504
25	Hex	323-005501	323-005502	323-005503	323-005504

BOL ABUTMENTS

Standard

Narrow



Hex

D ↓ (the diameter of the neck)	H → (the height of the neck)	1 mm	2 mm	3 mm	4 mm
4,5	Standard	150-004501	150-004502	150-004503	150-004504
4,5	Narrow	250-004501	250-004502	250-004503	250-004504
4,5	Hex	350-004501	350-004502	350-004503	350-004504

ACCESSORIES FOR ABUTMENTS

Open tray impression coping

Standard **171-006012**

The transfer comes with a screw:

132-004021

Narrow **271-006012**

The transfer comes with a screw:

232-004021

Hex **371-006012**

The transfer comes with a screw:

332-004021

Closed tray impression coping

Standard **171-006013**

Narrow **271-006013**

Hex **371-006013**

Analog

Standard **170-004012**

Narrow **270-003312**

Hex **370-004012**

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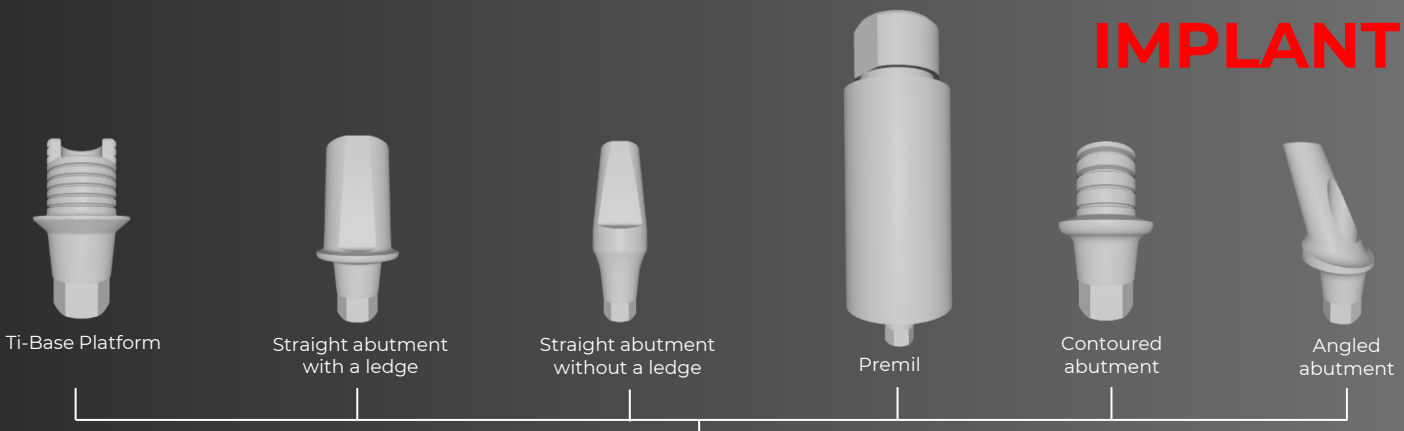
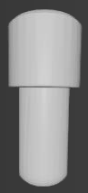
ORTOPEDIYA ON THE LEVEL OF THE IMPLANT



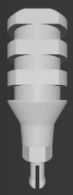

Temporary abutment

Analog


Digital


Gingival formers

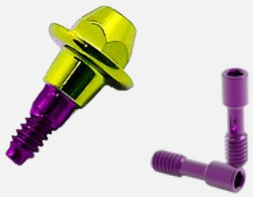

Analogous


Closed tray transfer


Open tray transfer


Scan marker

MULTI-UNIT STRAIGHT ABUTMENTS



Standard

The abutment is supplied with two screws:

SP 1,8x7,7mm: 130-002177

Narrow

The abutment is supplied with two screws:

NP. 1,6x7,9mm: 230-002179

Hex

The abutment is supplied with two screws:

HP 1,8x7,7mm: 330-002177

D ↓ (the diameter of the neck)	H → (the height of the neck)	1 mm	2 mm	3 mm	4 mm
5	Standard	151-005001	151-005002	151-005003	151-005004
5,0	Narrow	251-005001	251-005002	251-005003	251-005004
5	Hex	351-005001	351-005002	351-005003	351-005004

MULTI-UNIT ANGLED ABUTMENTS

Standard

The abutment is supplied with two screws:

SP 1,8x7,7mm: 130-002177

Narrow

The abutment is supplied with two screws:

NP. 1,6x7,9mm: 230-002179

Hex

The abutment is supplied with two screws:

HP 1,8x7,7mm: 330-002177

D ↓ (the diameter of the neck)	H → (the height of the neck)	1 mm	2 mm	3 mm	4 mm
5	Standard	152-005001	152-005002	152-005003	152-005004
5,0	Narrow	252-005001	252-005002	252-005003	252-005004
5	Hex	352-005001	352-005002	352-005003	352-005004

ACCESSORIES FOR MULTI-UNIT

Analog for Multi-Unit:
054-005012

Open transfer for
Multi Unit:
054-006010

Abutment for
temporary Multi-Unit:
054-005011

Gingival former for
Multi-Unit:
054-005005

Abutment for Multi-
Unit:
054-005010

Screw for Multi-Unit:
054-002304

Transfer screw for
Multi-Unit:
054-002312

Scan body for Multi-Unit:
054-005013

Ti-base for Multi-Unit:
054-005008

DIGITAL PROTOCOL

Scan marker

Standard

Supplied with a screw:

SP 1,8x7,7mm: 130-002177

Narrow

Supplied with a screw:

NP. 1,6x7,9mm: 230-002179

Hex

Supplied with a screw:

HP 1,8x7,7mm: 330-002177

	Standard	Narrow	Hex
Filar do skanowania EXOCAD NP	172-004015	272-004015	372-004015
Ti-00base for EXOCAD NP	172-004009	272-004009	372-004009
Ti-00base for CEREC NP	172-004309	272-004309	372-004309

SINGLE-STAGE IMPLANTS

Standard

D / L	8 mm	10 mm	12 mm	14 mm	16 mm
3	016-003008	016-003010	016-003012	016-003014	016-003016
3,3	016-003308	016-003310	016-003312	016-003314	016-003316
3,7	016-003708	016-003710	016-003712	016-003714	016-003716
4	016-004008	016-004010	016-004012	016-004014	016-004016
4,5	016-004508	016-004510	016-004512	016-004514	016-004516
5	016-005008	016-005010	016-005012	016-005014	016-005016

ONE-STAGE IMPLANTS

(MULTI-UNIT)

H=1,5

D / L	10 mm	12 mm
3,7	015-153710	015-153712
4	015-154010	
5	015-155010	

H=2,5

D / L	10 mm	12 mm
3,7	015-253710	015-253712
4	015-254010	
5	015-255010	

SINGLE-STAGE IMPLANTS

(TRANSIT)

D / L	10 mm	12 mm
3,2	091-003210	091-003212

ORTHODONTIC IMPLANT

D / L	6 mm	9 mm	12 mm
2	092-002006	092-002009	092-002012
2,3	092-002306	092-002309	092-002312
2,6	092-002606	092-002609	092-002612

CORTICAL SCREWS

A wide range of plate and screw sizes allows for the fixation of simple and complex multi-fragmentary fractures, providing an individualized approach to each patient.

The minimal instrumentation set makes plate application quick and convenient.

D / L	5 mm	6 mm	7 mm	8 mm
2	080-002005	080-002006	080-002007	080-002008

BONE COMPOSITE

Mechanism of action.

NanoGraft is a composite of crystalline calcium-deficient hydroxyapatite (HA) (not less than 65%) and amorphous calcium phosphate (not less than 35%) with a porous structure (45-60% porosity). HA is represented by non-stoichiometric calcium-deficient hydroxyapatite with free OH groups (Ca/P ratio ranging from 1.64 to 1.68). This unique composition plays a pivotal role in the hemostasis process by activating fibrinogen, which then converts to insoluble fibrin. The resultant fibrin forms a robust three-dimensional network encapsulating the HA and β-tricalcium phosphate (β-TCP) granules, thereby creating a physiologically relevant scaffold. This scaffold not only supports platelet adhesion and the attachment of progenitor cells but also fosters the release of growth factors essential for the development of fully functional bone tissue at the site of implantation. Moreover, the ions released from the amorphous calcium phosphate component are instrumental in activating the blood clotting system. They aid in the transformation of clotting factors VIIa, IXa, and X, culminating in the generation of cross-linked, insoluble fibrin. This contributes to the material's hemostatic properties, further enhancing its suitability for bone repair and regeneration.

In summary, the incorporation of HA/β-TCP-EXIMA as an osteoplastic material enables the establishment of a dense fibrin matrix. This matrix serves as a foundational layer for cellular adhesion and the subsequent formation of bone tissue, while simultaneously providing a hemostatic effect. This multifaceted approach ensures that NanoGraft is an effective medium for bone regeneration, promising improved outcomes in various clinical applications.

Compound.

NanoGraft is an advanced synthetic bone composite formulated from a base of calcium hydroxyapatite and tricalcium phosphate. This innovative material can be further enhanced with the addition of various biologically active components derived from mineral, botanical, and organic sources (bischofite, collagen and its derivatives, chitosan, eugenol, and others).

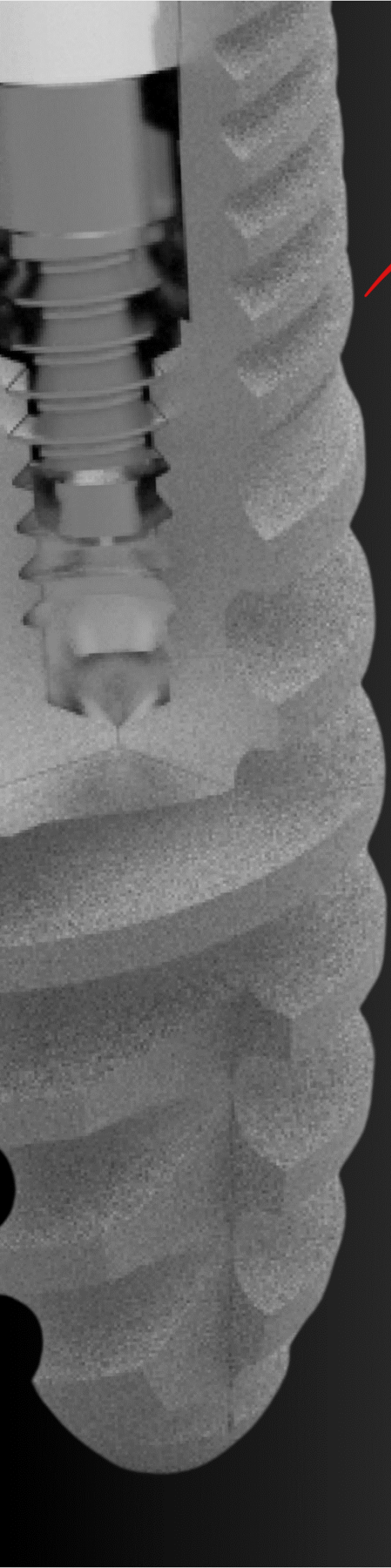
Application area.

Dentistry, Maxillofacial surgery, Orthopedics, Traumatology, Reconstructive surgery.

Indications.

Bone defects of various origins, contour bone grafting, osteoporosis, periodontitis, and periodontitis create conditions for implantation.

#	Vendor code	Title
☐	NG-0001	NanoGraft bone composite 1 gr.
☐	NG-0003	NanoGraft bone composite 3 gr.



NANO PRIME

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info@nano-prime.com

Unified State Registerlegal entities,
economic entities:
363334850

Taxpayer Identification Number:
PL7831735469

State court register:
0000594177