



Greetings from our Founder



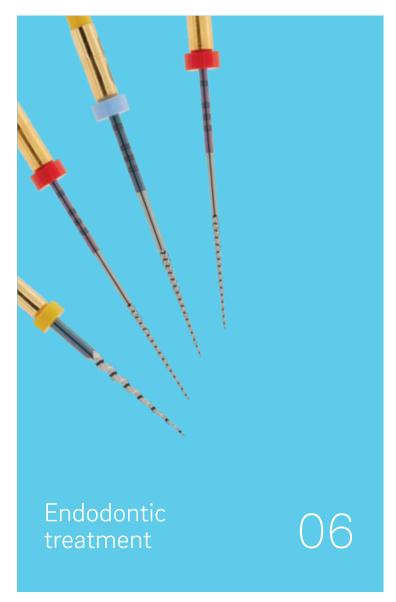
Welcome to Meta Biomed. Thirty years of business success speak for themselves: thanks to our dedication and innovative spirit, today we are a well-established name in the health and medical sector. We are committed to production excellence and guaranteeing customer satisfaction. We export our products to more than 80 countries and have been a driving force for innovation since our foundation. As a result of our research endeavours, we have not only consistently enhanced the quality of our own products, but have also made a long-term contribution to the further development of this entire industrial segment.

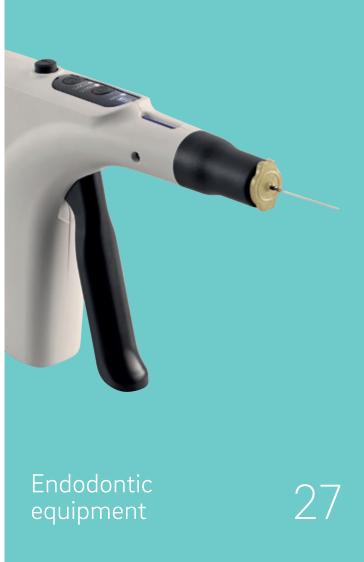
In the bio-engineering sector in particular, we have assumed a pioneering role with the development of alternative bone substitutes for Orthopaedic treatments. New and innovative products are on the verge of market maturity and will soon enable our customers to perform advanced treatments. As such, Meta Biomed is growing continuously and, looking toward the future, will continue to set great store by change and progress.

As a company in the health sector, we also have a particular responsibility vis-à-vis society. We remain continually focused on this responsibility and always do our utmost to ensure that every single product meets these standards. The entire Meta Biomed team embraces this responsibility with its shared values and rises to the daily challenges with creativity and dedication.

Seok Song Oh

Founder Meta Biomed

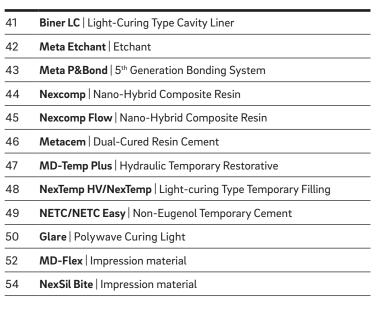




07	Aurum Blue Controlled Memory NiTi Files
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57	Sorbone Bone replacement material
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Endodontic treatment

 \rightarrow

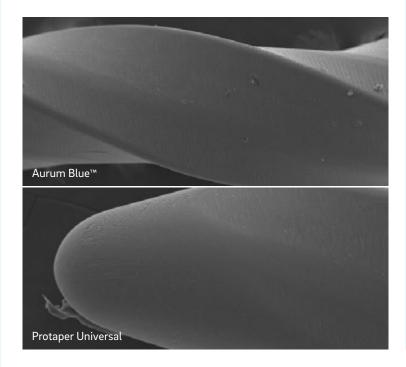
Innovative solutions from A to Z





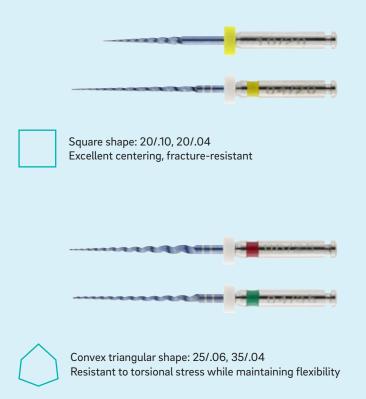
Benefits

- Unique Manufacturing Process
 Due to the unique heat and surface treatment during manufacturing,
 Aurum Blue files offer maximum flexibility without compromising strength
- Super flexible alloy
 Significantly reduces the risk of ledging, transportation or perforation of a canal
- O Bendability
 Easier access to a canal orifice
- O Electro-polishing surface treatment Removes imperfections and adds strength
- Shape recovery
 Heat treatment during manufacturing allows for shape recovery during autoclaving



Comparison

Source: Yonsei University, Dental Material Research Center



Aurum G™

Glide Path File



Benefits

O Unique Manufacturing Process

Due to the unique heat and surface treatment during manufacturing, Aurum G files offer maximum flexibility without compromising strength

O Increased flexibility

With increased flexibility and more resistance to cyclic fatigue due to special heat-treatment, Aurum G offers many advantages over manual stainless steel files

O Electro-polished Removes surface imperfections



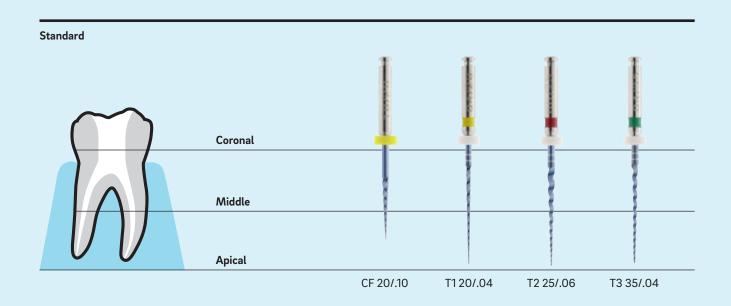
Aurum Blue, pack of 4

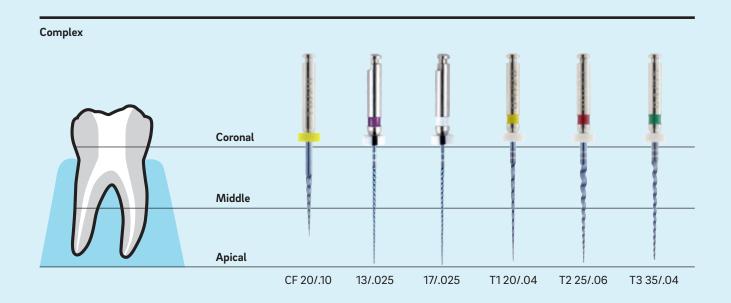
Contents	ID	Length Size	17 mm	21 mm	25 mm	31 mm
Sequence pack (20/.10, 20/.04, 25/.06, 35/.04)				•	•	•
CF (20/.10)		20	•			
T1 (20/.04)		20		•	•	•
T1.5 (25/.04)		25		•	•	•
T2 (25/.06)		25		•	•	•
T2.5 (30/.04)		30		•	•	•
T3 (35/.04)		35		•	•	•
T4 (40/.04)		40		•	•	•
T4.5 (45/.04)		45		•	•	•

Aurum G, pack of 6

Contents	Length ID Size	17 mm	21 mm	25 mm	31 mm
Assorted pack (13/.025 – 3 pcs., 17/0.25 – 3 pcs.)			•	•	•
13/.025	25		•	•	•
17/.025	25		•	•	•

Aurum Blue, Aurum G – protocol





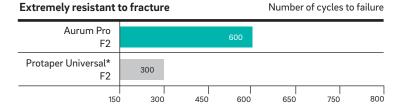
Aurum Blue RPM: 500, torque: 2.0 Ncm Aurum G RPM: 300, torque: 1.5 Ncm



Benefits

- Unmatched flexibility
 Heat-treated NiTi gives amazing flexibility, inhibiting transportation of root canal
- O The system you trust
 The most commonly used rotary file system
- Incredible strength100% more resistant to cyclic fatigue than

Comparison



Source: Yonsei University, Dental Material Research Center *Not a Meta Biomed trademark

Matching GP and PP



Aurum Pro Gutta Percha Points

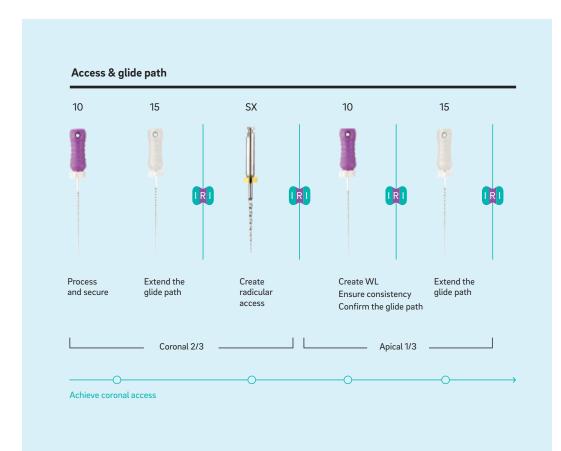
→ Page 14



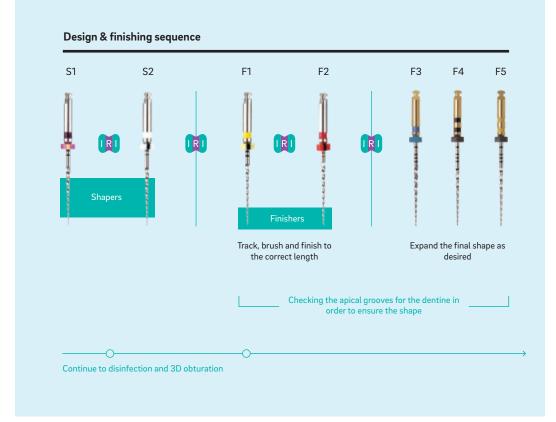
Aurum Pro Absorbent Paper Points

→ Page 15

Aurum Pro - protocol



- Use MD-Chelcream and small hand files during the manual processing and securing of canals.
- O Use NaOCI during the mechanical processing or shaping of canals.
- O Use Aurum Pro SX files over one or more rounds, or use Aurum Pro SX to move the coronal aspect of a canal from an external root concavity; remove the triangles from the dentine or create more shape.
- Rinse, repeat with a size-10 file, and rinse again after each time a rotating file is removed.
- O Clean and inspect the grooves on the rotating file on a regular basis.



- O Use Aurum Pro in regions of the canal that have a confirmed smooth and reproducible glide path.
- O Use Aurum Pro with a light brushing motion on the irrigated area in order to optimally prepare canals with irregular cross-sections and to allow easier permeation of the apical file.
- O Use Aurum Pro as needed to create a secure working length.



300 RPM/torque 1.5 Ncm







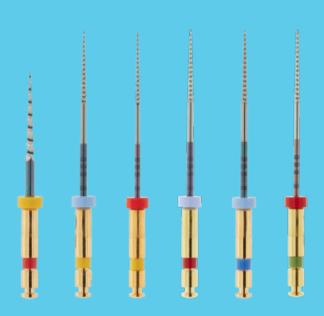


se Rep

12 Endod

GL153

Controlled Memory file with shape memory



Benefits

- The series 10 instruments are available in Stainless Steel or Nickel Titanium
- O Offered with the Standard handles or the unique D&S dual-purpose handle
- O GL153 is most effective when using constant downward pressure and a reciprocating motion with engine or by hand

Areas of application

- O The size 15 taper .02 is ideally suitable for preparing the glide path.
- The taper .02 also allows for largely interference-free preliminary work up to the apex, which is a real benefit with regards to tactility.
- O Method: slow backward movement.
- With the careful selection of the GL153 Safe10 instruments, the number of instruments per channel can be reduced.

Significant fracture-resistance and unlimited flexibility with a 10 mm working part





The optimised material structure and rounded cross-section of the GL153 make it easier to perform smooth and efficient canal preparation without damaging the tooth structure or risking a file fracture in the canal.

The production method occasionally has a significant impact on the fatigue strength and the torsional strength. An independent scientific study showed that the Controlled Memory wire used to produce the GL153 Safe10 series significantly increases the number of cycles: the instruments fail far later than comparable files on the market.

Step by step

Use a low-speed handpiece (500 UpM). A torque of up to 2.5 N cm (25 mN m) is recommended.







.06/30



.04/35

For the apical

Packaging types

Assortment pack - 21 mm

File	Taper .04	Taper .06	
Length ID Size	21 mm	21 mm	19 mm
20	714201	716201	-
25	-	716251	718251
30	714351	716301	-

Assortment pack - 25 mm

File	e Taper .04 Taper .		Taper .08
Length ID Size	25 mm	25 mm	19 mm
20	714200	716200	_
25	-	716250	718251
30	714350	716300	_

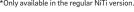
Single pack - 21 mm

	File	Taper .02	Taper .03	Taper .04	Taper .06	Taper .08
ID	Length Size	21 mm	21 mm	21 mm	21 mm	19 mm
\bigcirc	15	712151*	713151*	714151	716151	_
	20	712201	713201	714201	716201	_
	25	712251	713251	714251	716251	718251
	30	712301	713301	714301	716301	_
	35	712351	713351	714351	716351	_
	40	712401	713401	714401	716401	_

^{*}Only available in the regular NiTi version.

Single pack - 25 mm

	File	Taper .02	Taper .03	Taper .04	Taper .06	Taper .08
ID	Length Size	25 mm	25 mm	25 mm	25 mm	19 mm
\bigcirc	15	712150*	713150*	714150	716150	_
	20	712200	713200	714200	716200	-
	25	712250	713250	714250	716250	718251
	30	712300	713300	714300	716300	-
	35	712350	713350	714350	716350	_
•	40	712400	713400	714400	716400	_











Gutta Percha Points

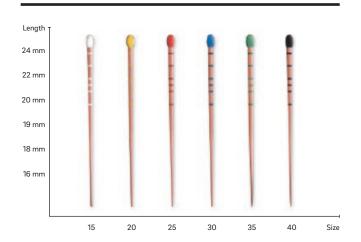
.02/.04/.06/.08/ Aurum Pro (F1~F3) Gutta Percha Points



Benefits

- O Long shelf life of 4 years
- O Rigid and flexible
- O Outstanding radiopacity
- O Different sizes, tapers and packs

Length markings



Size & specifications

02 cone: 10~140
04, 06 cone: 15~80
08 cone: 15~40
Non-standardised: XF, FF, MF, F, FM, M, ML, L, XL
Japanese style: JF-S, JF-M, JF-L, JS, JM, JL, JL-S, JL-M, JL-L
De Trey style: XX-F, X-F, Fine, Medium
Protaper size (F1~F5)

Specifications

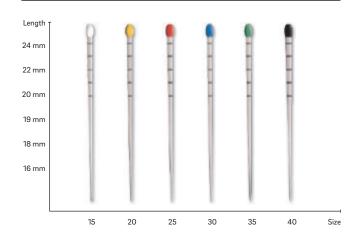
Size		Taper (Doolsoning tune		
Size	02 (120)	04 (60)	06 (60)	08 (60)	Packaging type
10					
15					
20					
25					
30					
35					
40					
45					
50					
55					see page 16 →
60					
70					
80					
90					
100					
110					
120					
130					
140					



Benefits

- O Highly absorbent
- O Sterilized individual packages
- O Various sizes and packages available
- O 5yrs Shelf life

Length markings



Size & specifications

02 taper: 15~140

04, 06, 08 taper: 15~80

08 taper: 15~40

Non-standardised:

- · Non-standardised: XX-Fine, X-Fine, Fine, Medium, Coarse, X-Coarse
- · Aurum Pro
- F1~F3

Specifications

Size		Taper (Packaging type		
Size	02 (120)	04 (60)	06 (60)	08 (60)	Packaging type
10					
15					
20					
25					
30					
35					
40					
45					
50					
55					see page 16 →
60					
70					
80					
90					
100					
110					
120					
130					
140					

Packaging types

Private labels are available in all packaging types



Pack of 6 vials (square)

O Code: P.31

O Regular point packs: GP: 60/120 points - PP: 60/200 points

O Dimensions: 84 × 51 × 16 mm



Pack of 6 vials (round)

O Code: P.3

O Regular point packs: GP: 60/120 points - PP: 60/200 points

O Dimensions: 84 × 51 × 16 mm



Slide dispenser

O Code: P.71

O Regular point packs: GP: 60/120 points - PP: 60/200 points

 \bigcirc Dimensions: 70 × 45 × 12 mm



Dispenser with 4 compartments

O Code: P.51

O Regular point packs: GP: 60/120 points - PP: 60/200 points

 \bigcirc Dimensions: 70 × 45 × 13 mm





Endo organizer

O Code: P.11

 \bigcirc Leak-proof, 12 compartments

O Size: ISO 15-80

 $\bigcirc \ \mathsf{Colour\text{-}coding} \ \mathsf{available}$

O Regular point packs: - GP: 240 points, PP: 400 points



Absorbent Paper Points

○ Code: P.61

O Regular point packs: 180/200 points

 \odot Dimensions: 163 × 54 × 11 mm

 \bigcirc Only available for PP



Temporary fixing cement with calcium hydroxide base



Benefits

- O Gentle cleaning and removal with good water solubility
- O Outstanding antibacterial effect and radiopacity
- O Pre-mixed paste
- O Syringe-type for easy delivery of the paste into the canal
- O Disposable tips for prevention of cross-contamination

Areas of application

- O Weeping canal
- O Formation of a hard tissue barrier (apexification)
- O Root canal filling for deciduous teeth
- O Internal and external root resorption

Components

2.2 g paste in a syringe (pack of 2 available)

disposable tips

rotational joint for direction control of the tip

Dimensions: $228 \times 61 \times 22 \,\text{mm}$

Weight: 46 g

Composition

Calcium hydroxide, barium sulphate, polypropylene glycol

Shelf life

2 years from the date of manufacture

Clinical cases

Apexification

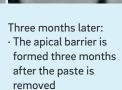


Before treatment:

- Large apical foramen with incomplete apex
- Note the root resorption at the lateral surface



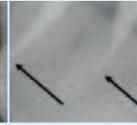
Metapaste filling





Six months later:
Outstanding healing with no further root absorption

To locate a genuine apical foramen



Approximately 1-2 months later, an X-ray image shows the location of the genuine apical foramen.

18 Endodontic treatment Root canal sealer | ADSEAL



Benefits

- O Excellent biocompatibility
- O Easy-to-mix paste
- O Hermetic sealing capacity
- O Nonstaining to the teeth
- O Insoluble in tissue fluid
- O Good radiopacity

Areas of application

- O Permanent sealing of the root canal
- O Thermal obturation

Components

13.5 g dual syringe

9 g base (epoxy resin, calcium phosphate)

4.5 g catalyst (amines, bismuth III carbonate)

Spatula

Mixing plate

Dimensions: 55 x 180 x 40 mm

Weight: 98 g

Composition

Base of epoxy resin oligomer, hydroxyethyl salicylate, bismuth III carbonate

Catalyst of polybutane diol amino benzoate, calcium phosphate, bismuth III
carbonate

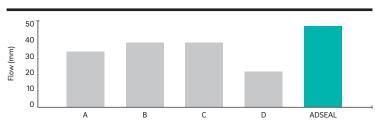
Shelf life

2 years from the date of manufacture

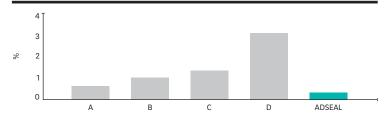
Properties

- O working time: 35 minutes at 23°C (73°F)
- O Setting: 45 minutes at 37°C (99°F)
- O Film thickness: 3.3 μm

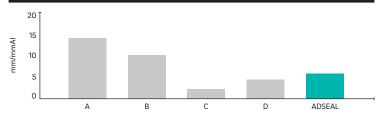
Flow



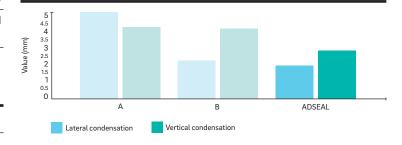
Solubility



Radiopacity



Material properties



EDTA | MD-ChelCream Endodontic treatment 19

MD-ChelCream

EDTA Cream for Root Canal Cleaning and Preparation



Benefits

- O Removal of inorganic substances through chelation (EDTA-Ca²⁺)
- O Easier filling thanks to lubrication effect
- O Produces the cleanest canal wall after smear layer removal

Areas of application

- O Root canal preparation with files and reamers
- O Presence of calcifications in the canal
- O Narrow canals in the premolars and molars
- $\bigcirc \, \mathsf{Smear} \, \mathsf{layer} \, \mathsf{removal} \,$

Components

MD-ChelCream 7 g (5.4 ml) × 2

Disposable tips

Dimensions: $186 \times 45 \times 30 \text{ mm}$

Weight: 59 g

Composition

EDTA, PEG

Shelf life

2 years from the date of manufacture

Why not find out about our endodontic equipment too?



i-ROOTFully automatic electronic apex locator



EQ-V SetWireless device for root canal obturation



ES-100 Endodontic micromoto

20 Endodontic treatment EDTA | MD Cleanser

MD-Cleanser

EDTA Solution



Benefits

- \bigcirc Removal of inorganic substances by chelation (EDTA-Ca²⁺)
- O Easier instrumentation by softening dentin canal wall
- O Produces the cleanest dentinal walls after smear layer removal

Areas of application

- O Presence of calcification in the canal
- O Narrow canals on posterior teeth
- O Smear layer removal
- O Root canal cleaning

Components

MD Cleanser: 100 ml

1cc syringe

Disposable tips

Dimensions: $106 \times 50 \times 53 \, \text{mm}$

Weight: 138 g

Composition

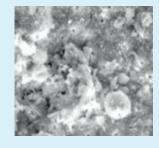
EDTA, PEG

Shelf life

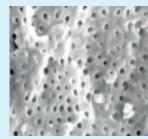
2 years from the date of manufacture

Clinical cases

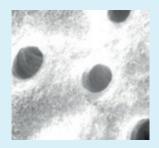




Following preparation of the root canal



Following application of the MD Cleanser (×1000)



Following application of the MD Cleanser (×7000)

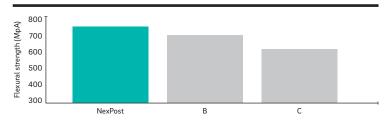
Fiber Post | NexPost Endodontic treatment 21



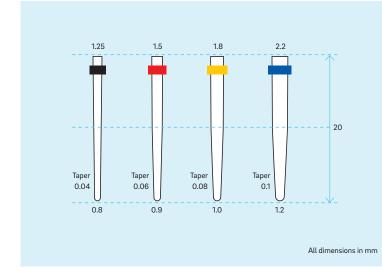
Benefits

- O Radiopaque
- O Translucent
- O Optimal flexural strength (close to dentine)
- \bigcirc Excellent light translucency for efficient light-curing deep in the root canal

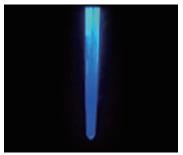
Strength test



Sizes



Physical and chemical properties

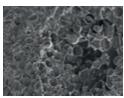


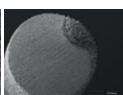


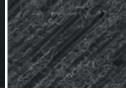
Translucency

Radiopacity

Scanning electron microscope







Fibreglass Composite resin matrix

Components

NexPost kit (pin ×20, drill ×5)

NexPost re-fill (pin ×5)

NexPost re-fill drill (drill ×1)

Composition

Glass Fibre, resin with Bis-GMA base

Shelf life

3 years from the date of manufacture

22 Endodontic treatment Bioceramic Sealer | CeraSeal

CeraSeal

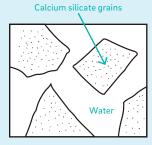
Calcium Silicate-based Bioceramic Root Canal Sealer

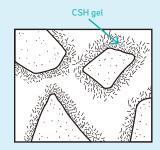


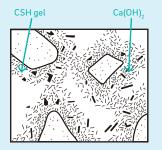
Benefits

- O anti-microbial
- O optimal biocompatibility
- O excellent sealing ability
- O Unique stability

It's Calcium Silicate!









Calcium silicate produces CAH (Calcium Aluminate Hydrate) gel and CSH (Calcium Silicate Hydrate) gel by absorbing the moisture from surrounding tissues in the root canal and some crystallization of Calcium Hydroxide (Ca(OH)₂).

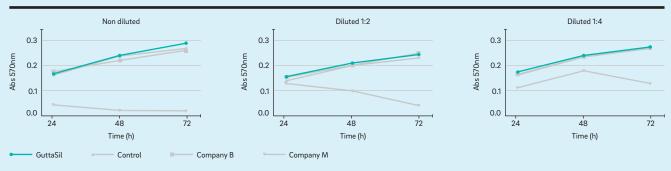
Anti Microbial, High Biocompatibility

рΗ



This test result shows that even if CeraSeal has high pH (12.73), it proves high biocompatibility.

Bioactivity and cytocompatibility of new bioceramic sealer



Bioactivity and cytocompatibility of new bioceramic sealer: Ceraseal, 2018. By Rodríguez-Lozano FJ. et al

23 Bioceramic Sealer | CeraSeal **Endodontic treatment**

Excellent Sealing Ability

- O Moisture in the dentinal tubules and Calcium Silicate's chemical reaction produce crystallization of Calcium Hydroxide
- O CeraSeal is perfectly and fully hermetic in the root canal
- O It prevents from the propagation of bacteria



Unique stability

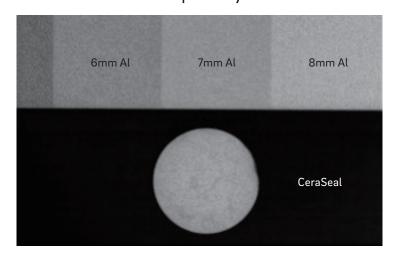
- O CeraSeal never shrinks or expands in the root canal
- O It prevents from odontoclasis by keeping its stable volume
- O The Single cone technique obturation can be performed

Shorter Setting time

→ prevents from wash-out phenomenon

The wash-out phenomenon can happen if the MTA or MTA based sealer is not sufficiently cured or the exudate is produced in the root canal. Consequently, the root canal sealer is washed away by physical forces. CeraSeal prevents by curing faster than other sealers.

Excellent Radiopacity: 8mm Al



Clinical Cases



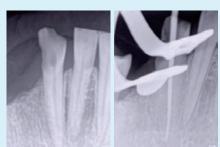
Courtesy of Dr. Walter Vargas Obando



Courtesy of Dr. Jenner O. Argueta



After



Before Courtesy of Dr. Jenner O. Argueta



Before



After



After

Physical Properties

Before

Setting Time	3.5 h
рН	12 <
Radiopacity	8mm <

Components

CeraSeal

2g Pre-mixed syringe × 1EA Intra canal tips × 15EA

24 Endodontic treatment Root canal sealer | GuttaSil



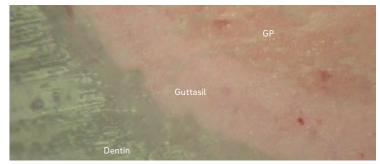
The Simplest way for obturation



Benefits

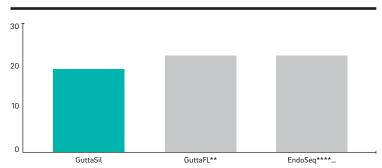
- O Simple obturation-technique
- O Dimensional stability
- O Strong bonding
- O Excellent flowability

Combine with Master cone



Guttapercha-based sealer: excellent adhesive ability to GP.

Bondingstrength (n)



Excellent flowability

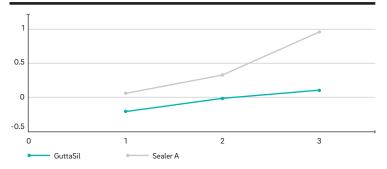
- $\label{eq:continuous} O\ Thix otropic\ properties\ give\ better\ flow ability$
- O Flows smoothly into smallest root canals
- O enables three-dimension obturation in complex root canal systems

Dimensional stability

- $\ensuremath{\bigcirc}$ No dimensional change in the root canal
- O Enables to perform Single Cone Technique



Shrinkage



25 Root canal sealer | GuttaSil Endodontic treatment



Clinical Cases

O Cold obturation with GuttaSil







Before

After

Courtesy of Dr. Jenner O. Argueta





Before

Courtesy of Dr. Jenner O. Argueta

Physical Properties

Setting Time (mins)	25
Working time (mins)	4
Film thickness (μm)	20

Components

GuttaSil	GuttaSil dual syringe × 1ea Mixing tip (endo tips) × 12ea Mixing pad × 1ea Spatula × 1ea
GuttaSil Refil	GuttaSil dual syringe × 1ea

26 Endodontic treatment Core Resin | NexCore



Dual-cured build-up material



Benefits

- O Suitable viscosity and flow for post cementation and core build-up
- O Dual curing: light-curing and self-curing are possible, so no need to worry about incorrect resin polymerisation
- O Biocompatibiliy (ISO10993)
- O Easy-to-mix by auto-mixing type, Direct injection: Intraoral-tip, Endo-tip
- O Excellent radiopacity
- O 3 shades (tooth, white and ceramic restoration blue: metal restoration)
- O Suitability for cutting (flexural modulus: NexCore 14.2GPa)

Areas of application

O Post-adhesions and core structures in restorations

Components

NexCore cartridge $\times 1$ with 50 g paste, $30 \times$ Automix tip, $30 \times$ intraoral tip

NexCore cartridge refill ×1 with 50 g paste (shade: tooth, white, blue)

NexCore dual syringe ×2 with 9 g paste, 20× Automix tip, 10× Intraoral tip, 10× Endo-tip

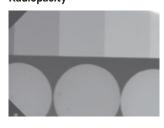
NexCore dual syringe refill ×1 with 9 g paste (shade: tooth, white, blue)

Competitor A

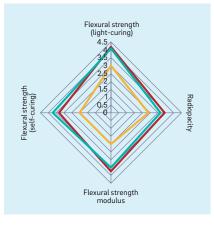
Competitor B

NexCore

Radiopacity



Composition of physical property parameter



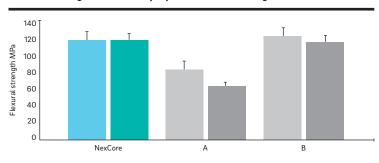
Composition

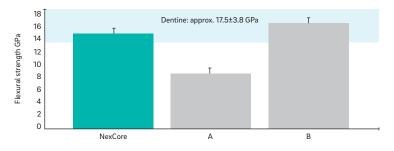
Barium glass, ytterbium(III) fluoride, pyrogenic silicic acid Bis-GMA, TEGDMA

Physical properties

Working time	1:50 ~ 2:20 min
Setting time	4:00 ~ 5:00 min (self-curing) 20 ~ 40 s (light-curing)
Flexural strength (light-curing)	20 ~ 40 s (light-curing)
Water resorption, solubility	16.5/ 2.3 μg/mm²
Radiopacity	Optical density corresponds to the optical density on a 4.2 mm aluminium step wedge
Shade and colour stability	No change in colour and identical to the shade guide. *tested as per ISO 4049

Flexural strength modulus - polymerisation shrinkage rate





Endodontic equipment

Successful treatments with revolutionary equipment



28 Endodontic equipment Electronic Apex Locator | i-ROOT

i-Root

Electronic apex locator

i-ROOT is the 5th generation dual-frequency apex locator model. i-ROOT precisely measures the apical constriction without any measurement errors.



Benefits

- O Optimal precision in all root canal conditions (dry, bleeding, wet, saline, EDTA, NaOCI or chlorhexidine etc. ...)
- O Simultaneous visual and sound measurement
- O Colour display
- O Stylish and ergonomic design
- O Simple operation
- \bigcirc Self-test to check the system
- $\bigcirc \, \mathsf{Automatic} \, \mathsf{power}\text{-}\mathsf{off} \, \mathsf{function} \,$
- O Stable and durable in a wide range of conditions
- O Computer monitoring and patient management via USB interface

Components

1 probe cable 1 file holder A 2 file holder B	1i-ROOT main unit	
2 file holder B	1 probe cable	
	1 file holder A	
F.P. (P.)	2 file holder B	
5 lip clips	5 lip clips	

Specifications

Dimensions	W110 × H100 × D117 mm
Screen	W79 × H70 mm
Battery	Lithium-ion, DC 7.2 V, 2200 mAh
Continuous operation	60 hours
AC adapter	AC 100~240 V, (50~60 Hz)
Weight	390 g

Device	Battery	Connection to the monitor
i-ROOT S	Rechargeable battery	•
i-ROOT A	Rechargeable battery	×
i-ROOT 100	AA battery (×3 each)	×



Benefits

- O Powerful Performance with Long-lasting Battery
 - · Stable Rotation: 250~800RPM (16:1)
 - · Torque: 0.6~6.4 NCM
 - · 10hrs of working time (2200mAh)
 - · Swiss Micro Motor
- O Ergonomically Designed Body with Small Headed, Durable, Chemically Resistant Contra-Angle
 - · Remains intact after 1 week of immersion in Cavicide
- O Torque Auto-Reverse, Auto Forward, Reciprocation
- O Memory Functions
 - · Memo 1 ~ 9
 - · Memorizing RPM, Torque, Reverse Function, Rotation Direction

Components

'	
1 control unit	
1 handpiece	
1 contra-angle	
1 AC adapter	

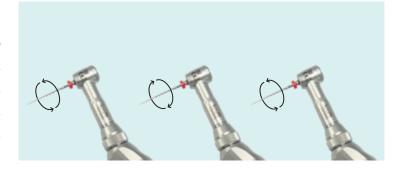
Specifications - control unit

Rated input current	7.2 V, 1.2 A
Dimensions	ø16.7 × L63
Weight	443 g



Auto Reverse

When the current torque is reached (1), the handpiece will run in an anti-clockwise direction (2), causing the file to run free and then stop (3).

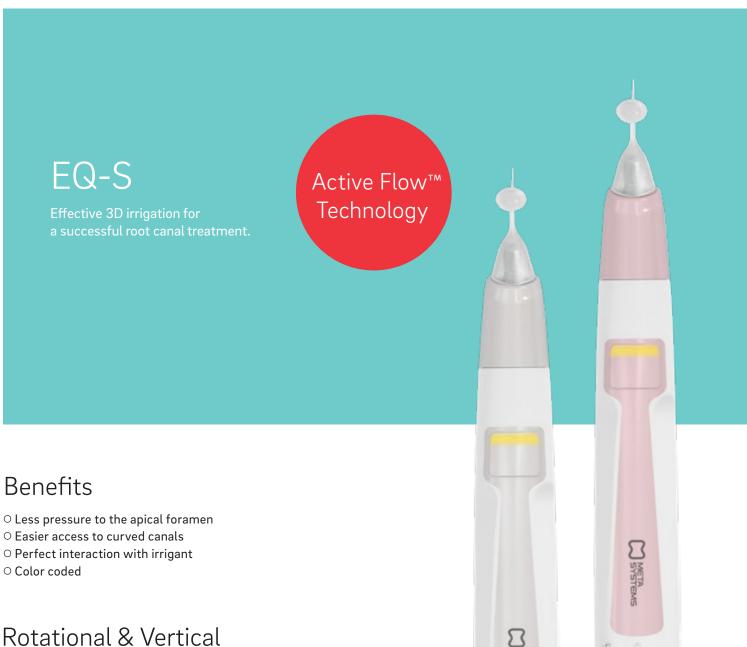




Auto Forward

When the current torque is reached in Auto Forward mode (1), the file will automatically rotate in the opposite direction (2), causing it to run free, and will then continue to rotate in a clockwise direction (3).

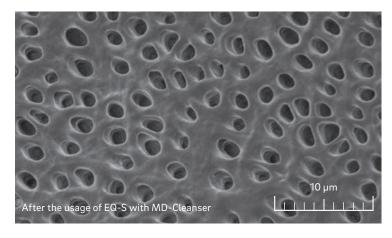
30 Endodontic equipment EQ-S

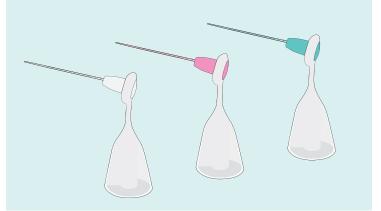


Rotational & Vertical Movement

Indentation along the tip, combined with counter clockwise motion, ensures 3D Active Flow $^{\text{\tiny TM}}$. The unique shape and design of the EQ-S tip create stronger force, which enhances flow in small canals.

Powerful Cleaning





EQ-S Endodontic equipment 31



Specifications

Dimensions (W × H × L)	24 mm × 25 mm × 183 mm (Including tip)
Weight	43 g
Battery 1.5 V Alkaline (AA) – Not included in the Kit	
Operation Time	9 hours (continuous operation)

Contents

Item Code	Description	Remark	
026-210	EQ-S Gray Kit	Tips and Protective Sleeves included	
026-220	EQ-S Pink Kit	Tips and Protective Sleeves included	
126-230	EQ-S Tip 15/02	30ea/1set (Color: White)	
126-240	EQ-S Tip 25/02	30ea/1set (Color: Red)	
126-250	EQ-S Tip 35/02	30ea/1set (Color: Green)	
126-260	Protective sleeve	100ea/1set	

Testimonial



Dr Jenner Argueta, DDS, M.Sc.

My clinical feeling of EQ-S, as a multidirectional sonic device and the novel design of the activating tips, when working inside of the root canal is quite good. It is also useful in my clinical practice for removing medicaments, spreading bioceramic sealers inside of the root canal previous to the placement of the master cone and cements previous to the placement of fiber posts.



Dr Johnny Onori, DDS, M.Sc.

EQ-S is an innovative device, versatile, of easy clinical use, oering something that so far had not been seen in a sonic device. My clinical experience is the multidirectional movement of the tip causing more fluid dynamics, creating continuous waves and having better cleaning, disinfection and removal of the smear layer. High power can be used for irrigation or removing Calcium hydroxide and low can be used for spreading bioceramic sealer before placing the master cone.

32 Endodontic equipment Warm Gutta Percha Obturation | EQ-V

EQ-V

Cordless root canal obturator
The new EQ-V system from META BIOMED, for the reliable, practical and precise obturation of root canals.





Benefits

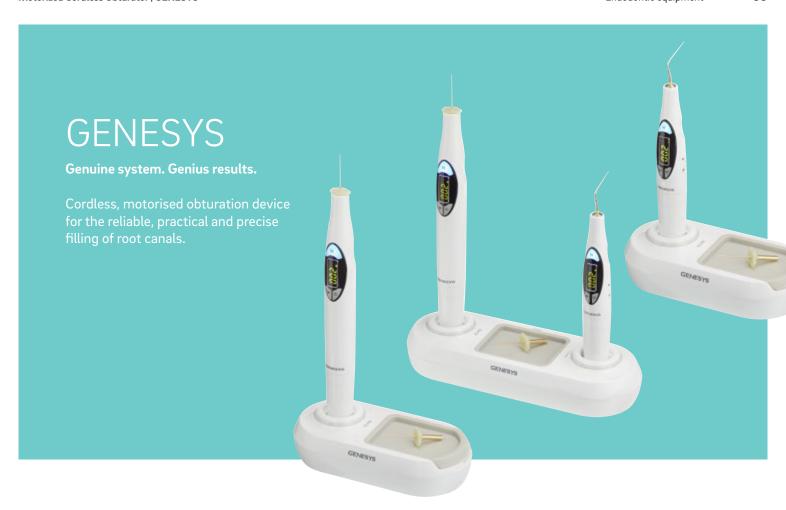
- O Chemically resistant and ergonomically designed body (remains intact after one week of immersion in cavicide)
- O Durable flexible GP Cartridge
- \circ Easy maintenance due to unique structure
- Outstanding heating performance

Specifications

Charger	Input	100-240 V	
	Output	DC 9 V; 2.0 A	
EQ-V Fill	Heater	DC 3.8 V; 8 W	
	Heating Time	≈ 35 seconds	
EQ-V Pack	Heating Time	1 second	
Operating time	Fill	Continuous for 1 hour	
	Pack	Continuous for 1.5 hours	
Battery (Li-ion)	Li-ion	3.6 V, 1900 mAh	
	Charging time	3 hours	

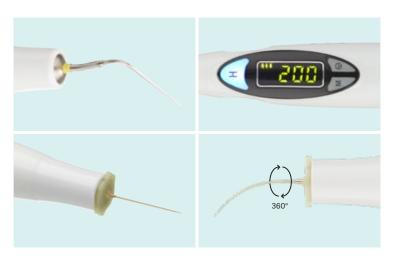
Content

Part Number	Description	Fill	Pack	Battery	Single Charger	Dual Charger	Pack Tip	Cartridge	GP Bar (100ea)
EQV026	EQ-V Fill Kit	1	1	3		1	2 (50/04, 06/05)	1 pack (25G)	1
EQV027	EQ-V Fill Kit	1		2	1			1 pack (25G)	1
EQV022	EQ-V Pack Kit		1	2	1		2 (50/04, 06/05)		



Benefits

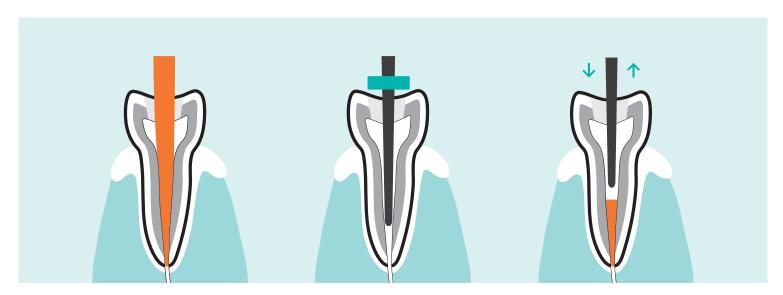
- O Cordless and electric motorized filling system
- O New cartridge needle to refill GP pellet
- O High capacity lithium-ion battery
- O Simple, easy and quick to use



Specifications

Charger	Input	9.0 V	
Dimensions (W×L×H)	Single charging station	160 mm × 80 mm × 45 mm	
	Double charging station	220 mm × 80 mm × 45 mm	
Adapter	Input	100-240 V	
	Output	9.0 V, 2.0 A	
	Dimensions	84 mm × 47 mm × 31 mm	
Genesys Pack	Dimensions (W \times L \times H)	153 mm × 27 mm × 25 mm	
	Weight	90 g (incl. battery)	
	Temperature range settings	140, 200, 300°C	
	Automatic switch-off	5 minutes	
Genesys Fill	Dimensions (W \times L \times H)	221mm × 27mm × 26 mm	
	Weight	179 g (incl. battery)	
	Temperature range settings	140, 160, 180, 200°C	
	Automatic switch-off	5 minutes	
Battery	Lithium-ion battery	3.6 V, 1900 mAh	

Obturation process – Fast, reliable and dense filling





Fit a master cone that matches the size and taper of the canal being obturated and trim the tip to 0.5mm short of the working length.

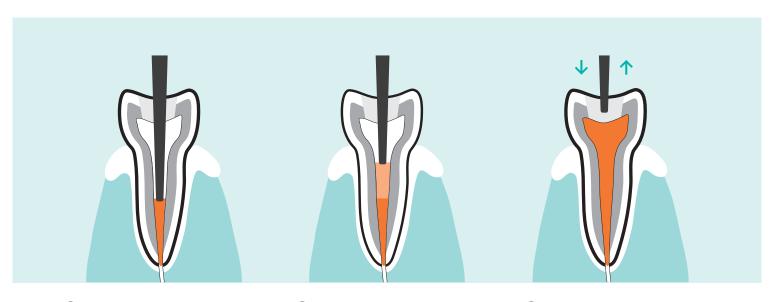


Select an EQ-V Pack Tip to reach a depth 4–6mm short of the working length.



Coat the bottom 3 mm of the master cone with sealer and insert it into the root canal. Remove excess gutta-percha using the EQ-V Pack Tip to 4–6mm short of the working length.

Condense the gutta-percha with a hand plugger to completely obturate the apical area and accessory canals.





Insert the EQ-V Fill's cartridge into the root canal and wait 5 seconds for it to heat.



Slowly pull on the trigger to back-fill the root canal with gutta-percha to the canal orifice.



Condense the hot gutta-percha with a hand plugger to achieve complete obturation of the root canal.

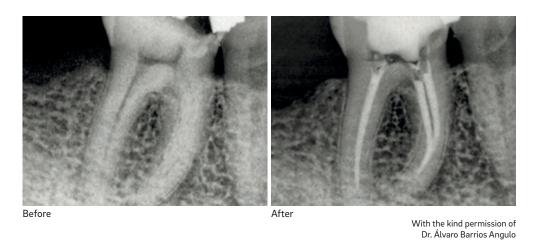
Clinical cases | EQ-V/Genesys Endodontic equipment 35

Clinical cases



€Q-V







With the kind permission of Dr. Walter Vargas Obando 36 Endodontic equipment instrument | EQ Condenser

EQ Condenser

Maximum flexibility for individual obturation techniques

Hand pluggers can be used with all standard obturation techniques including warm and cold condensation.





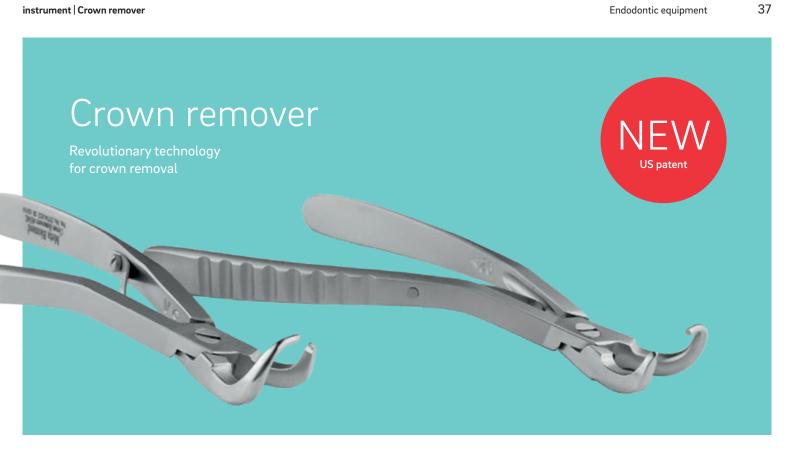
Benefits

- O Flexible NiTi tip
- O Smooth edge, flat end
- O Practical Length marking (5 mm from the tip)
- O Anti-crack and rotation prevention
- O Color anodizing
- O Excellent chemical resistance
- O Lightweight

Specifications

NiTi tip	Marking	N40 •	N60 •	N80 •
	Working length	17 mm	17 mm	17 mm
	Taper	0.02	0.01	0.01
SUS tip	Marking	S80 •	S100 O	S120 •
SUS tip	Marking Working length	S80 • 17 mm	S100 • 17 mm	S120 • 17 mm

instrument | Crown remover Endodontic equipment



Benefits

- $\ \, \bigcirc \, \operatorname{No} \, \operatorname{more} \, \operatorname{sectioning} \,$
- O Gentle on root and crown
- O Saves time and money

Useful tips

- The distance between the purchase points must be at least 4 mm
- As shown in the image, it may be necessary to grip the tooth horizontally depending on the shape of the crown

Application – buccal



Application – lingual



38 Endodontic equipment EndoRing II



Package Contents

1 EndoRing II Assembly	
6 e-Foam Inserts	
1 Metal Ruler	
4 Single Use Cups	

Each Assembly Includes

1 EndoRing Cup	
3 Finger Rings (S, M, L)	
1 Reusable Cup	
1 Adaptor Ring	

Processing Instructions:

EndoRing Cup with Finger Ring GelWell Adaptor Ring GelWell Cup Metal Ruler (if equipped)

Precleaning Instructions: Disassemble the metal ruler (if equipped) and any reusable or single use GelWell cup or ring. Rinse all items under tap water to remove gross and visible soils. Use a scrub brush if necessary to remove visible soils. Place items in an ultrasonic bath with only an **enzymatic detergent** prepared to the manufactures directions. Fully immerse the items and soak for 1 minute. Then sonicate the parts for 5 minutes and remove and rinse for 15 seconds with tap water. Inspect for any soils and repeat if any soils are visible.

Autoclave Processing Instructions: Place items in an FDA approved autoclave pouch/bag. Using a gravity autoclave, process the items at 250° F (121° C) for 30 minutes. Allow the bagged articles to dry for 30 minutes. During autoclaving, place all components near center of the chamber.

Single Use e-Foam Inserts DO NOT REUSE

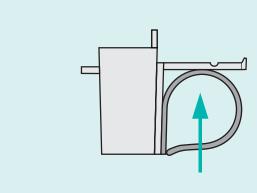
Steam autoclave a new e-Foam insert prior to use. Unused or ultrasonically cleaned files may be placed in the e-Foam insert prior to processing. Autoclaving will not remove bioburden left behind from prior usage. The e-Foam insert, along with files, may be placed in an FDA approved autoclave pouch/bag prior to processing. Do not exceed temperature of 275°F (135°C). To avoid deforming the e-Foam insert, do not load or stack items on top of the e-Foam insert during autoclave processing. Dispose of after each use.

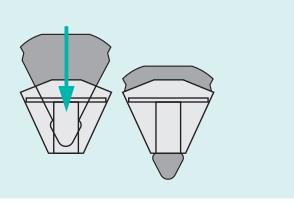
Single Use GelWell Cups DO NOT REUSE

Always use a new single use GelWell cup for each procedure. Do not autoclave the cups because they will deform and or melt. Dispose of after each use. To disinfect, always use an FDA approved High Level Disinfectant and follow the manufacturer's instructions.

Do not place any components into Surgical Milk, "cold sterilizing solutions" or instrument dips prior to autoclaving. **Only use enzymatic ultrasonic detergents** when precleaning the EndoRing cup and the metal ruler in ultrasonic cleaners.

EndoRing II Endodontic equipment 39



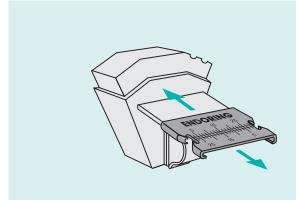


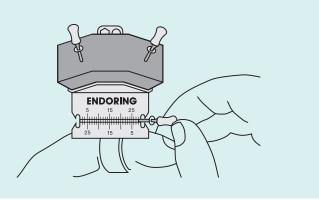


Before assembly, choose one of three ring sizes (small, medium or large) that best fits your index finger. Slide the selected ring into the cup channel located beneath the scale.



Place the EndoRing e-Foam insert into the EndoRing cup. Pull the e-Foam insert out the bottom of the cup to seat the foam.



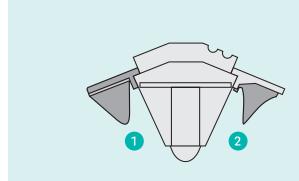


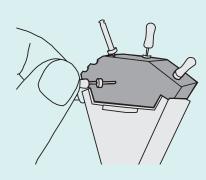


Prior to first use, autoclave the EndoRing cup with the metal ruler attached to the ruler platform. After the first autoclaving, the metal ruler will easily slide on and off the EndoRing cup. For subsequent autoclaving, always remove the metal ruler from the ruler platform. WARNING: If the metal ruler gets loose, remove it and autoclave the EndoRing cup for 2 cycles to restore the retention feature.



Arrange hand files, rotary files or other instruments into the e-Foam insert. Remove all file bioburden prior to autoclaving files in the e-Foam insert. When using rubber stops, utilize the stop locks on either the built-in ruler or the detachable metal ruler to increase or decrease the instrument's working length. The rulers perform well with paper points, gutta percha and many other endodontic instruments. To efficiently clean instruments, simply pass them in and out of the e-Foam insert. You can also clean instruments by sliding them through the corrugated area on top of the e-Foam insert. Rubber stops can be safely added to instruments using the ports located on the back of the EndoRing cup.







Attachments can be placed onto the EndoRing cup to hold lubricant or other lubricating gels and liquid. Use either the reusable 2.0ml cup (1) or the single-use clear .65ml cup (2) inserted into the attachment ring. These can be reversibly attached to either side of the EndoRing cup.



The back of the EndoRing cup features the Endo Docking Station™. When held by an assistant, a doctor operating under a surgical microscope, can safely pass files into the expanded area of e-Foam. The area is also ideal for storing used files.

Restorative treatment

Maximum efficiency with excellent materials



Biner LC

Light-curing Type Cavity Liner



Benefits

- O Outstanding biocompatibility with dentine and pulp
- O Light-curing type cavity liner, extremly hard-curing
- O Chemical bonding to adhesives and composites
- O Insoluble in water and oral fluids
- O Radiopacity
- O Flow-on-demand operation and easy dispensing
- O Heat barrier

Areas of application

- O Protection of the dental pulp
- O Lining under all filling materials
- O Protection when applying the total etch technique

Physical properties

Flexural strength	Over 100 MPa
Sensitivity to ambient light	60 seconds, homogeneous
Linear expansion	2 ~ 3%
Radiopacity	Yes
Curing depth (40 s)	2 mm

Components

Biner LC 2 g × 2 syringes
10 disposable tips

Composition

Calcium hydroxyphosphate, UDMA, photoinitiator
Barium aluminium silicate

Shelf life

3 years from the date of manufacture

42 Restorative treatment Etchant | Meta Etchant



- O Polymer-thickened gel
- O Easy dispensing and application
- \bigcirc No residue, full rinsing
- O Thixotropic properties (non-flowing)

Areas of application

 Conditioning of the surface for dentine and tooth enamel with composites and inlay/onlay

Clinical cases

Components

 $3 g \times 3$ syringes, 20 tips

Composition

Phosphoric acid, H2O, xanthan gum

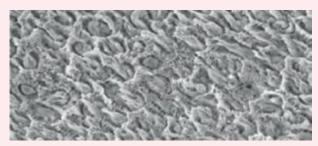
Shelf life

 $\boldsymbol{2}$ years from the date of manufacture

Tooth enamel SEM



Before application of Meta Etchant (×2000)

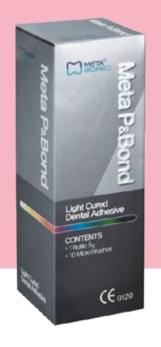


After application of Meta Etchant (×2000)

Adhesive | Meta P&Bond Restorative treatment 43

Meta P&Bond

5th Generation Bonding System





Benefits

- \bigcirc Superior bonding strength
- \bigcirc 5th Generation adhesive
- \bigcirc One-step priming and bonding
- O Ethanol based adhesive
- Wet bonding type

Areas of application

- O Bonding for direct composite
- Bonding for porcelain, composite, metal repair, setting amalgam, post
- O Bonding for porcelain veneer
- O Bonding for amalgam and indirect bonding methods with Metacem adhesive resin cement



Dentine shear bonding strength 10.75 MPa

Tooth enamel shear bonding strength 30.76 MPa

Components

Meta P&Bond 5 g

10x micro-brushes

Composition

Bis-GMA, PMGDM, 2-hydroxyethyl methacrylate, ethyl alcohol

Shelf life

2 years from the date of manufacture



- O Low 1.6% shrinkage for superior marginal integrity, various shades
- O Filled with 40 nano-sized filler for excellent polishability
- O Optimal handling excellent sculptability for restoring natural shape and function
- O Non-slumping, non-sticky

Areas of application

- O Class I, II, III, IV, V restorations
- O Diastema closures
- O Direct veneering
- O Composite and porcelain repairs

Components

Nexcomp kit:

- \cdot 4 g × 7 syringes (A1, A2, A3, A3.5, B2, A2E, B2E)
- · Meta P&Bond 5 g
- · Meta Etchant 3 g

Nexcomp Refill:

· 4 g × 1 syringe (A2E, B2E, A1, A2, A3, A3.5, A4, B1, B2, B3, C2, C3, D2, D3, TL, WT, OP, OA2, OA3) g

Composition

Bis-GMA, UDMA, Bis-EMA

Borosilicate glass

Shelf life

3 years from the date of manufacture

Nexcomp

3.0

2.5

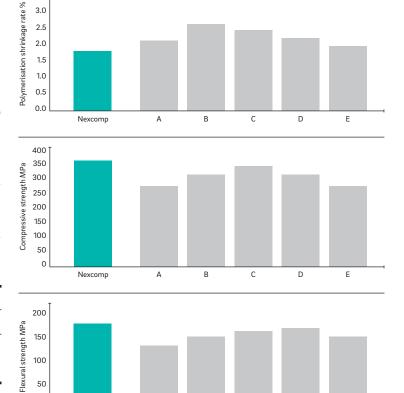
50

Nexcomp

Polymer-based principle organic components	Bis-GMA, Bis-EMA, urethane dimethacrylate, triethylene glycol dimethacrylate
Dimension range of inorganic filler particles	0.04 to 0.7 μm
Volume percent of the total amount of inorganic filler particles	54 vol. %
Recommended external energy source	Necessary specifications for the light-curing device: standard dental halogen/LED lights with a light intensity of over 400 mV/cm² and a

wavelength between 430~480 nm

Physical and chemical properties





- O Low viscosity, light-curing, radiopaque flowing composite resin for minimally invasive cavity preparations.
- O With 40 nanofillers for excellent polishing capacity
- O Flow-on-demand operation
- O Outstanding radiopacity
- O Available in 14 shades including opaque and transparent
- O No sinking or running out

Areas of application

- O Restoration of the invasive cavity
- O Hole and fissure sealing
- O Base and liner for direct restoration
- O Repair of temporary acrylic materials
- O Repair of indirect aesthetic restorations

Components

Nexcomp Flow set:

 \cdot 2 g × 5 syringes (A2, A3, A3.5, B2, B3), each with 20 disposable tips

Nexcomp Flow Refill:

 \cdot 2 g × 2 syringes (A1, A2, A3, A3.5, A4,B1, B2, B3, OA2, OA3, C2, D2, WT, TL), each with 10 disposable tips

Composition

Bis-GMA, UDMA, Bis-EMA TMPTMA

Borosilicate glass

Shelf life

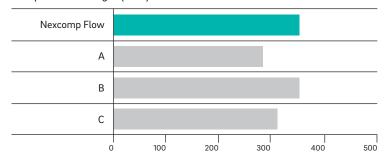
3 years from the date of manufacture

Nexcomp Flow

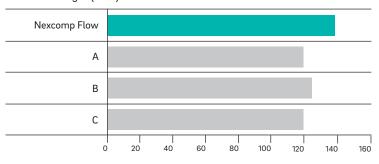
Polymer-based principle organic components	Bis-GMA, Bis-EMA, urethane dimethacrylate, triethylene glycol dimethacrylate
Dimension range of inorganic filler particles	0.04 to 0.7 μm
Volume percent of the total amount of inorganic filler particles	37 vol. %
Recommended external energy source	Necessary specifications for the light-curing device: standard dental halogen/LED lights with a light intensity of over 400 mV/cm² and a wavelength between 430-480 nm

Physical and chemical properties

Compressive strength (MPa)



Flexural strength (MPa)



46 Restorative treatment Dual-Cured Resin Cement | Metacem



Dual-cured Resin Cement



Benefits

- O Easy to use for indirect cosmetic restorations
- O high resistance to compressive force
- O Provides dual-curing for heavily shaded, thick or opaque closures
- O 5 shades correspond with shade guide A1, A3, B2, TL (Translucent white), OP (Opaque)

Areas of application

- O Crowns and bridges (ceramic, composites, porcelain)
- O Inlay/onlay sealing
- O Bonding for porcelain veneers

Components

Metacem set:

- · 2 dual syringes (A3, transparent white, 9 g each)
- · P&Bond 5 g

- · etchant 3 g
- · 20 mixing tips
- \cdot 20 etchant disposable tips

·Spatula

- · mixing pad paper
- · 10 adhesive brushes

Matacam Rafill

1 dual syringe (A1, A3, B2, transparent white, opaque, 9 g each)

Composition

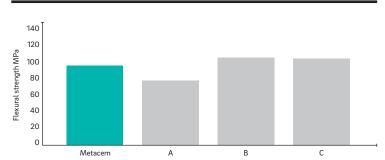
Base - Bis-GMA, DHEPT, borosilicate glass

Catalyst-Bis-GMA, TEGDMA, borosilicate glass

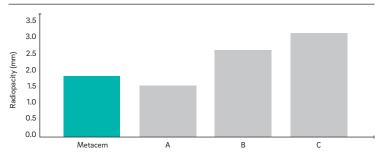
Shelf life

2 years from the date of manufacture

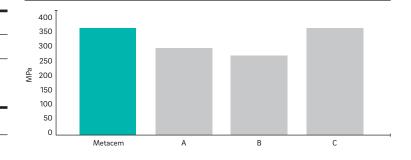
Physical and chemical properties



- · Working time: 2 minutes
- · Setting time: 5 minutes
- · Flexural strength: 99 MPa
- · Radiopacity: 2.33 mm Al/mm



- · Film thickness: <21 µm
- · Water absorption: 29.3 µg/mm³
- · Water solubility: 2.3 µg/mm³



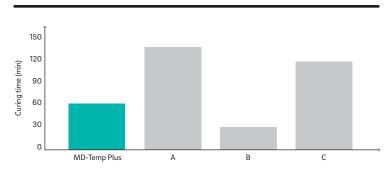


- O Simple application and removal
- O Hermetic cavity sealing
- O Excellent stability with suitable compressive strength

Areas of application

O Temporary cavity filling

Physical and chemical properties



Components

4x white or pink paste in a glass container (40 g, 30 g, 20 g)

Dimensions: $40 \times 35 \times 39 \, \text{mm}$

Weight: 52.5 g, 42.5 g, 32.5 g

Composition

Copolymer

Zinc oxide

Calcium sulphate

Shelf life

 $\boldsymbol{3}$ years from the date of manufacture

NexTemp HV/NexTemp LC

Light-curing temporary filling





Benefits

O High elasticity

- · Tightness for margin sealing
- · Easy application and removal
- $\cdot \, \mathsf{Excellent} \, \mathsf{stability} \, \mathsf{when} \, \mathsf{set} \,$
- · Proper crush strength

Areas of application

○ Temporary treatment of the prepared cavity (1~6 days)

O Temporary cavity filling

Components

NexTemp HV: 3 g × 3 syringes (TL, blue)

NexTemp LC: 2 g × 3 syringes, 10× disposable tips (TL, blue, yellow)

Shelf life

Nextemp HV:	2 years from the date of manufacture
Nextemp LC:	3 years from the date of manufacture

Application







4 Light-curing



2 Cleaning and drying



5 Polishing



3 Application



6 Removal of surplus material



- O Paste in a tube
- O Working time: 1.5 minutes
- O Setting time: 6 minutes
- $\ensuremath{\mathsf{O}}$ Particularly suitable for patients with sensitive reactions to eugenol

Areas of application

O Temporary sealing of crowns and bridges

Components

Type of tube: Base 40 g, catalyst 14 g, mixing pad

Dual syringe design: 2×11 g each, 2 mixing tips each

2 caps each, mixing pad

Composition

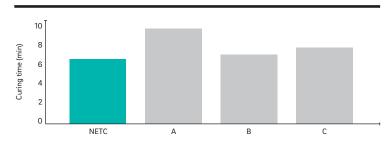
Base – zinc oxide and mineral oil

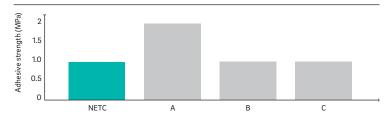
Catalyst - resin and nonanoic acid

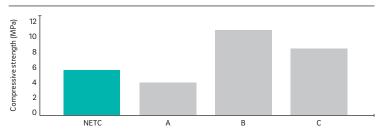
Shelf life

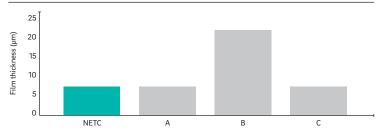
2 years from the date of manufacture

Physical and chemical properties









50 Restorative treatment Polywave Curing Light | Glare



Benefits

- O deep, uniform curing
- O compatible with all kinds of photo initiators
- O 5 programmes
- O high intensity & focused light

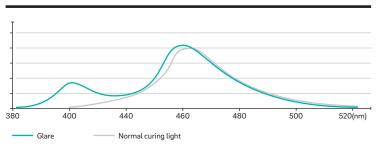
High Intensity & Focused light

- O High Intensity of 1800mW/cm²
- O Enables deep and uniform curing of restoration

Dual Wavelength LED

- \bigcirc wide usability
- O Usable for all kinds of materials with 405nm & 460nm peak wavelength LED

Relative light intensity





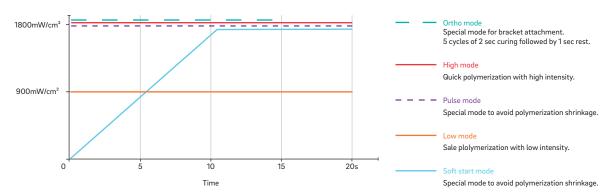
Polywave Curing Light | Glare Restorative treatment

5 types of light curing

O User can select curing type according to treatment

- O High, Low, Soft start & Pulse mode
- O flexible curing time

light curing modes



Special Features for user and patient





- O Slim head & 330° head twist
- O comfortable to the patient
- \bigcirc easy access to posterior teeth



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O Angled hand piece





- OLED Screen○ excellent readability
- **Specifications**

Model	Glare	
Wavelength	400~490 (nm)	
Screen	OLED	
Power source	Lithium-ion-battery 2400mAh	
Light source	High power dual wavelength LED	
Weight	approx. 130g	





- O High capacity battery
- \odot Ensures long operation time (with 2400 mAh)

Content

Туре	Glare
Hand piece	1
Charger	1
Adapter & Power Cord	1
Battery	1 (2400 mAh)
Disposable cover	2 (100 pcs/pack)
User manual	1

52 Restorative treatment Impression material | MD-Flex



Benefits

- O Impressions of crowns, bridges or partial dentures
- $\label{thm:continuous} O\ Accurate\ impression\ without\ bubbles\ because\ of\ hydrophilic\ property$
- O Gypsum model will be effectively reproduced without transformation due to an excellent reproducibility and volume stability
- O Biocompatibility (ISO10993)
- O Compatible with other polyvinyl siloxane impression materials
- \bigcirc Easy to mix by auto-mixing type

Areas of application

O Cavity impressions of veneers, inlay, onlay, crowns, bridges or partial dentures

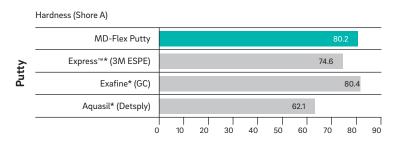
Specifications

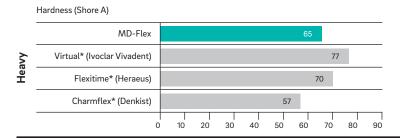
Туре	Contents
Putty	Base 450 g, catalyst 450 g, 2 measuring spoons each
Heavy	2×50 ml cartridges, each with 6 Automix tips Large pack 4 and 10 cartridges (without mixing tips)
Monophase	2×50 ml cartridges, 6 Automix tips, 6 intraoral tips, large pack 4 and 10 cartridges (without mixing tips, oral tips)
Light	2×50 ml cartridges, 6 Automix tips, 6 intraoral tips Large pack 4 and 10 cartridges (without mixing tips, oral tips)

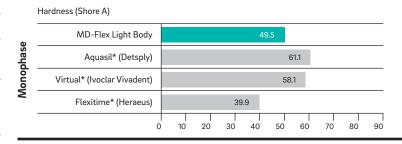
Shelf life

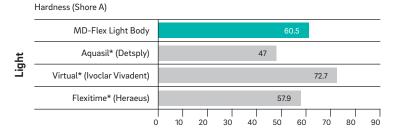
2 years from the date of manufacture

Physical and chemical properties







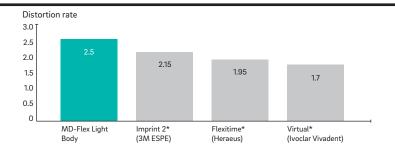


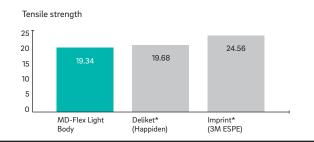
Impression material | MD-Flex Restorative treatment

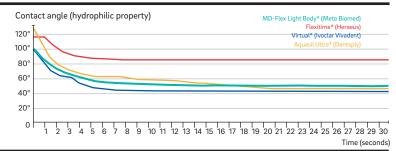


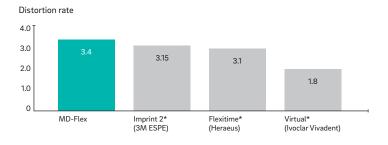
*Not a Meta Biomed trademark

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54 Restorative treatment Impression material | NexSil Bite





Benefits

- O The fast-setting material offers rock-hard adjustment for excellent occlusal recordings
- \bigcirc Due to the high final hardness of 90 Shore A and the high fracture toughness, the material is easy to cut and grind
- $\label{thm:conding} O\ \text{Provides excellent results when recording images with intraoral scanners}$
- O Biocompatibiliy (ISO 10993)
- O Simple mixing thanks to automatic mixing mode

Physical properties

Working time (23°C)	Setting time (23°C)	Shore A
40 seconds	90 seconds	90

Components

Cartridges 50 ml ×2

Areas of application

 $\ensuremath{\mathsf{O}}$ Used to produce an occlusion in the mouth

Shelf life

3 years from the date of manufacture

Providing quality. Taking responsibility.



GL sponsoring

The Meta Biomed philosophy is not exclusively about delivering the highest possible product quality; we also aim to improve the quality of life for many people. We strive for success and wish to share this with others. And this is only possible thanks to your help. We would be delighted to provide you with details of how, together with us, you can support aid organisations or find ways for Meta Biomed to support your organisation. We are always open to new suggestions and ideas. We look forward to hearing from you!

Sponsorship

Meta Biomed has set up a sponsorship programme for children in need. As part of this programme, every member of the Meta Biomed family sponsors a child in need. Regular contact is maintained through letters, e-mails and pictures. Our responsibility towards these children goes hand in hand with our sense of duty vis-à-vis our company.



Non-profitorganisations

Meta Biomed is proud to be able to promote and support its partners' aid programmes. Together with Dr. Jenner and ADIZ-ONG from Guatemala we donated 10% of our profits from the Greater New York Dental Meeting for charitable work. And this is just the start. We are already looking forward to getting involved in more exciting projects in the future!

Donations

We are always on the look-out for projects and organisations worthy of support. And we are not just focused on monetary donations. For example, we provide our products free of charge to our friends and partners at the Medical Faculty of the University of California in San Diego. We also support the Memorial Health Foundation and the Anderson Cancer Institute. Do you also wish to be supported by Meta Biomed? – Please do not hesitate to get in touch!







Bone graft

Safe and high-quality regeneration





- O Outstanding osteoconductivity
- $\ensuremath{\mathsf{O}}$ Accelerates bone regeneration and activates healing
- O Excellent biocompatibility (no biological rejection, no disease transmission)
- O Precise and problem-free implantation
- \bigcirc Easy to use
- O Porosity: 55~60%

Areas of application

- O Periodontal defects
- O Intrabony defects
- $\bigcirc \ \mathsf{Ridge} \ \mathsf{augmentation}$
- O Implant preparation/placement at extraction sites
- O Sinus lift
- O Cystic cavities

Patient case

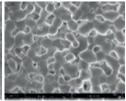


X-ray image before the implant (left) and after the implant (right)

Sorbone SEM observation







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Sorbone chipform

Sorbone internal structure

Sorbone surface: Connected nanopores and micropores

Pack details - vials

Size		We	eight	
0.3~0.5 mm	0.25 g	0.5 g	1.0 g	2.0 g
0.5~1.0 mm	0.25 g	0.5 g	1.0 g	2.0 g
1.0~2.0 mm	0.25 g	0.5 g	1.0 g	2.0 g
2.0~4.0 mm	0.25 g	0.5 g	1.0 g	2.0 g

Pack details - syringe

Size	Weight			
0.3~0.5 mm			1.0 cc	2.0 cc
0.5~1.0 mm	0.25 cc	0.5 cc	1.0 cc	2.0 cc
1.0~2.0 mm	0.25 cc	0.5 cc	1.0 cc	

GBR (flap opening)



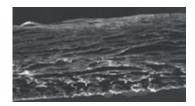
58 Surgical & Implant Products Synthetic bone | SorGuide



Benefits

Safety materials:

Highly purified type-I collagen membrane derived from porcine tissue



Excellent Adhesion:

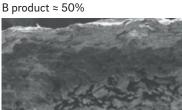
Excellent adhesion to bone loss section with good flexibility



High porosity:

Outstanding biocompatibility (no biological rejection, no disease transmission)

SorGuide™ ≈ 70%



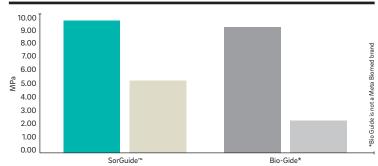
Size

TG-1 (15 × 20 mm) $TG-2 (20 \times 30 mm)$ $TG-3 (30 \times 40 \, mm)$

Comparison – duration of biological degradation

Brand	Duration of biological degradation
SorGuide™	3~5 months
B product	2-4 months

Comparison - tensile strength



Clinical cases







Application of SorGuide After 4 months







SorGuide™

Cover prior to application Incorporation of bone

transplants

After 4 months (vestibular view)



After 4 months

PTFE Suture | Monotex Surgical & Implant Products 59

Monotex

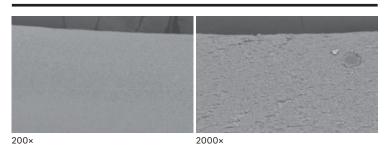
Monotex is an excellent suture choice for dental bone grafting and implant procedures. It's clean, comfortable and has little to no package memory, which results in excellent handling and knot security. Our PTFE (Polytetrafluoroethylene) was designed to be an ultra-soft, high density surgical suture. The monofilament construction and low surface porosity reduces bacterial migration along the suture line.



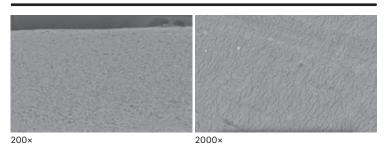
Our Sutures Smooth Surface

Monotex is less porous than other PTFE sutures. The proprietary monofilament construction reduces the potential for bacterial migration into the surgical site and, unlike most monofilament sutures, its softness makes it comfortable for patients.

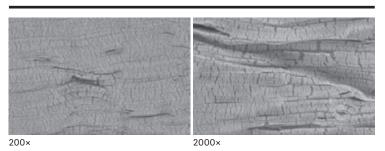
Monotex



Competitor A



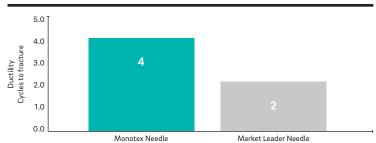
Competitor B



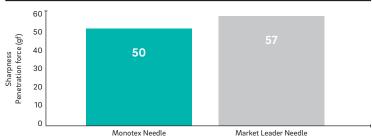
Our Needles Sharper & Stronger

Our needles are made from 300 series stainless steel, which has greater tensile strength, higher ductility and less brittleness than 400 series stainless steel.

Stronger Needles - 100% increase in ductility

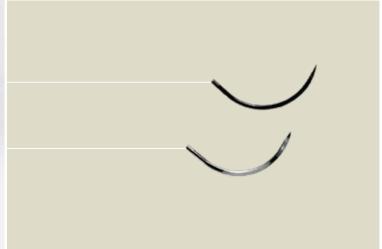


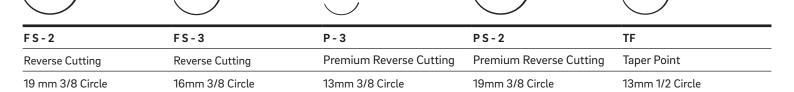
Sharper Needles - 12% less force needed



60 Surgical & Implant Products PTFE Suture | Monotex







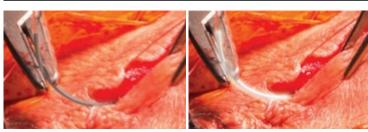
Cobra Black[®] vs. Standard Needles Better Contrast & Visibility

The Cobra Black® needle uses a proprietary process that enhances visibility, especially in blood and smaller surgery sites. The Cobra Black® needles eliminate the hindering glare from the operating room lighting. The needles are more distinguishable than the standard stainless steel needles.

Needle Glare Reduction



Better Contrast against Tissue



CobraBlack®

Bright Steel

Ordering Codes

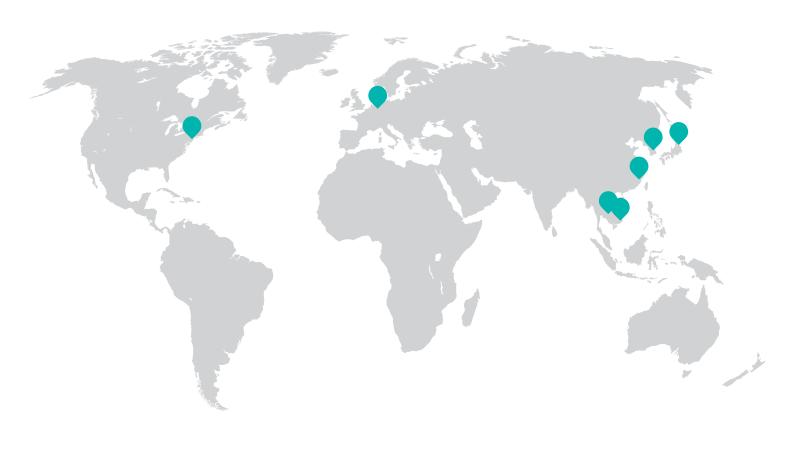
Standard Needle

Code	Size		Lengt	Length	
T8000	3-0 USP	2.0 EP	18"	45 cm	FS-3
T8001	4-0 USP	1.5 EP	18"	45 cm	FS-3
T8204	4-0 USP	1.5 EP	18"	45 cm	TF
T8604	4-0 USP	1.5 EP	18"	45 cm	P-3
T8664	2-0 USP	3.0 EP	18"	45 cm	FS-2
T8665	3-0 USP	2.0 EP	18"	45 cm	FS-2
T8682	4-0 USP	1.5 EP	18"	45 cm	PS-2
T8698	5-0 USP	1.0 EP	18"	45 cm	P-3
T8695	6-0 USP	0.7 EP	18"	45 cm	P-3

CobraBlack® Needle

Code	Size		Leng	th	Needle
T8000C	3-0 USP	2.0 EP	24"	60 cm	FS-3
T8001C	4-0 USP	1.5 EP	24"	60 cm	FS-3
T8204C	4-0 USP	1.5 EP	24"	60 cm	TF
T8604C	4-0 USP	1.5 EP	24"	60 cm	P-3
T8664C	2-0 USP	3.0 EP	24"	60 cm	FS-2
T8665C	3-0 USP	2.0 EP	24"	60 cm	FS-2
T8682C	4-0 USP	1.5 EP	24"	60 cm	PS-2
T8698C	5-0 USP	1.0 EP	24"	60 cm	P-3
T8695C	6-0 USP	0.7 EP	24"	60 cm	P-3

Other PTFE suture and needle combinations available upon request.





META BIOMED EUROPE GmbH (GERMANY)

Wiesenstrasse 35 45473 Mülheim an der Ruhr Tel +49 208 309 91910 Fax +49 208 30 991 999 europe@meta-europe.com



$\begin{tabular}{ll} \textbf{META BIOMED CO., LTD} (SOUTH KOREA) \\ \textbf{HEAD OFFICE} \end{tabular}$

270, Osongsaengmyeong 1-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do, 28161 Republic of Korea Tel +82-43-218-1981 Fax +82-43-217-1984 dental@meta-biomed.com



META BIOMED CO., LTD. (JAPAN)

3F 32 Shibakouen Bldg. 3-4-30 Shibakouen, Minato-ku, Tokyo 105-0011, Japan Tel +81-3-5408-5688 Fax +81-3-5408-5812 metabiomed.jp@gmail.com



META BIOMED CO., LTD. (CHINA)

Room. 10A75, No2299, WestYan an Road, Changning District Shanghai China/ 200336 Tel +86-21-6280-6286 Fax +86-21-6280-6282 chninfo@vip.sina.com



META BIOMED VINA CO., LTD. (VIETNAM)

Lot N-1B, Road No 4 Long Hau Commune Zone Expansion, Hamlet 3, Long Hau, Commune Can Giuoc Distric, Long An Province, Ho Chi Minh, Vietnam Tel +84-08-3620-6672



META BIOMED INC. (USA)

3015 Advance lane Colmar, PA 18915 Tel +1-267-282-5893 Fax +1-267-282-5899 america@metabiomed-inc.com



META BIOMED CO., LTD. (CAMBODIA)

Path, village Trapeng Tleng, Sangkat Chaum Chao, Khan Porsenchey. Phnom Penh Cambodia Tel +85-23-969-051 Fax +85-23-969-050





