METABIOMED

Endodontics / Restorative / Bone Graft





Meta Biomed, Dental Business Group, www.meta-biomed.com

META BIOMED COLTD.

270, Osongsaengmyeong 1-ro, Osong-eup, Heungdeok-gu, Cheongju-si, Chungcheongbuk-do, Korea Tel:82-43-216-0433-4 Fax:82-43-217-1988 Website: http://www.meta-biomed.com E-mail: infogmeta-biomed.com















Contents

Restorative

Liner / Etchant

- 29 Biner LC | Light Curing Cavity Liner
- 30 Etchant | 37% Phosphoric Acid

Bonding

31 Meta P&Bond | 5th Generation Bonding System

Nano Hybrid Composite

- 32 Nexcomp | Nano Hybrid Composite Resin
- 33 Nexcomp Flow | Nano Hybrid Flowable Composite Resin

Core

- 34 NexPost | Fiber Post
- 35 Nexcore | Dure-Cured Build-up Material

Permanent Cement

36 Metacem | Dure-Cured Resin Cement

Temporary Cavity Filling

- 37 MD-Temp Plus | Hydraulic Temporary Restorative
- 38 Nextemp HV / Nextemp LC | A light-cured temporary filling materials

Temporary Cement

39 NETC/NETC Easy | Non-Eugenol Temporary Cement

Impression Material

- 40 Putty | Polyvinylsiloxane Impression Material Heavy Body Regular Body
- Light Body
 42 Nexsil Bite | Non-Eugenol Temporary Cement
- 43 Nexsil Soft | Non-Eugenol Temporary Cement

Endodontic Equipment

Endodontics

06 **Aurum G** | Glide path File

09 Aurum Pro Protocol

Root Canal Filling

10 Gutta Percha Points11 Absorbent Paper Points

Root Canal Sealer

EDTA

Root Canal Medicaments

15 ADSEAL | Resin Based Sealer

13 Metapex | Calcium Hydroxide with lodoform

16 ZOBSeal | Zinc Oxide Based Root Canal Sealer

17 MD-Chelcream | Viscous Chelator / EDTA Gel
 18 MD-Cleanser | Smear Layer Remover / EDTA Solution

14 Metapaste | Calcium Hydroxide with Barium Sulfate

12 Packing Type

05 Aurum Blue Square | Controlled Memory File

Aurum Blue Triangle, Aurum G Protocol
 Aurum Pro | Even better than the original

NiTi File

- 21 I-Root | Electronic Apex Locator
- 22 Rootor | Electronic Apex Locator
- 23 ES-100 | Endo Motor
- 24 EQ-V | Cordless Root Canal Obturator
- 25 Genesys | Motorized Cordless Obturator
- 27 EMS-200 | All In One Endo System

Bone Graft

Synthetic Bone

- 45 DM-Bone | Silicon Ion Containing 60% HA, 40% B-TCP
- 46 Sorbone | 100% B-TCP
- 47 **SorGuide** Absorbable Periodontal Regeneration Induction Membrane



A-Z Endo Solution from Meta



Aurum Blue Triangle™

Controlled Memory File





20/.10 20/.04 25/.00 35/.04

Blue; the color of extreme elasticity & fracture resistance

Advantage

1

Martensitic Alloy

Aurum Blue files are manufactured utilizing a unique process in which the crystallographic phase transition from austenite to marten site at room temperature in contrast to conventional NiTi files, making the files extremely flexible and fracture resistant



Super Flexible Alloy

Significantly reduce the risk of ledging, transporation or perforation of a canal



Pre-bendable

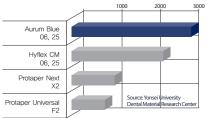
more easier access to a canal orifice



- Surface Treatment Removing imperfection

Comparison

• Extremely resistant to fracture



Number of Cycles to failure





Aurum Blue

Protaper Universal

Aurum G[™]

Glide Path File



Blue; the color of extreme elasticity & fracture resistance

Advantage

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;

• Surface Treatment Removing Imperfection

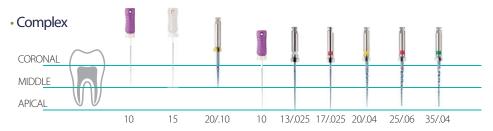


Item list

Aurum Blue Triangle 4pcs/pack										
Contents	17mm		21mm		25mm		31mm			
Sequence Pack (20/.10, 20/.04, 25/.06, 35/.04)			0		0		0			
20/.10	0									
20/.04			0		0		0			
25/.06			0		0		0			
35/.04			0		0		0			
Aurum G, 6pcs Refills, 6pcs/pack										
Contents			21mm		25mm		31mm			
Assort Pack (13/.025 3pcs, 17/0.25 3pcs)			0		0		0			
13/.025			0		0		0			
17/.025			0		0		0			

Aurum Blue Triangle, Aurum G Protocol





All Aurum Blue files can be used at 500RPM and at a torque of 2.0 Ncm (20 mNm)

Aurum G (RPM: 300, Torque: 1.5Ncm)

Post Op







Regeneration after heating-up



Aurum Pro[™]

Familiar Sequence, Different Flexibility





UNMATCHED FLEXIBILITY

Heat-treated NiTi gives amazing flexibility, inhibiting transportation of root canal



THE SYSTEM YOU TRUST

The most commonly used rotary file system

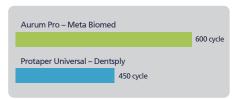


INCREDIBLE STRENGTH

20% Resistant to Cyclic Fatigue than Protaper Gold 240% Resistant than Protaper Universal

Amazing Strength of Aurum Pro

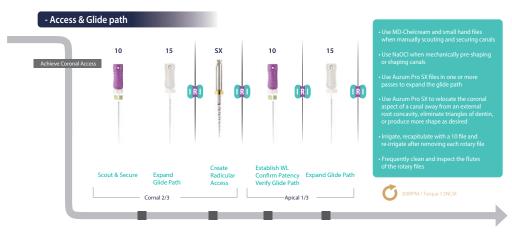
Number of cycle for fracture, Internal testing data





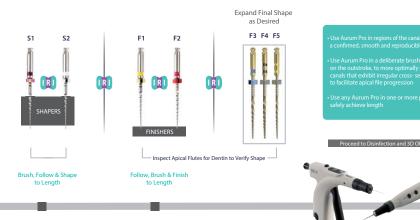
Aurum Pro Protocol







- SHAPING & FINISHING SEQUENCE





EQ-VThe Best Choice for Continuous
Wave Obturation

Gutta Percha Points

.02/.04/.06/.08/Pro Taper Gutta Percha Points



Advantage

- Long Shelf Life 4yrs
- Stiff and Flexible
- Excellent Radiopacity
- Various Size, Taper, Package

Length Marked



Size & Specification

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

Specification

		Taper(
Size	02(120)	04(60)	06(60)	08(60)	Packing Type
10					
15					
20					
25					
30					
35					
40					
45					
50					Page16
55					
60					
70					
80					
90					
100					
110					
120					
130					
140					

Absorbent Paper Points

.02/.04/.06/.08/Pro Taper Paper Points





Advantage

- Highly Absorbent
- Sterilized Individual Packages
- Variety Sizes and Package Available
- 5yrs Shelf life

Length Marked

Accurate insertion of the working length



Size & Specification

- 02 Taper: 15~140
- 04, 06, 08 Taper: 15~80
- 08 Taper: 15~40
- Non Standard
- Non-Standard: XX-Fine, X-Fine, Fine, Medium, Coarse, X-Coarse
- Protaper Size(F1~F5)

Specification

Size		Taper(points)		Packing Type
	02(120)	04(60)	06(60)	08(60)	3 71
10					
15					
20					
25					
30					
35					
40					
45					
50					Page16
55					
60					
70					
80					
90					
100					
110					
120					
130					
140					

Packing Type (Private Labels are available in all packages)

6 Vial Packing (Square)



• Code: P.31

• Regular Packing Points:

- GP: 60/120 Points - PP: 60/200 Points

• **Dimension**: 84×51×16(mm)

Sliding Type Dispenser



• Code: P.71

• Regular Packing Points :

- GP: 60/120 Points - PP: 60/200 Points

• Dimension: 70×45×12(mm)

Endo Organizer



• Code: P.11

• Spill Proof 12 Compartments

• Size: ISO 15 - 80

Color Coded Available

• Regular Packing Points :
- GP: 240 Points - PP: 400 Points

6 Vial Packing (Round)



• Code: P.31

• Regular Packing Points:

- GP: 60/120 Points - PP: 60/200 Points

• **Dimension**: 84×51×16(mm)

4 Compartment Dispenser



• Code: P.51

• Regular Packing Points :

- GP: 60/120 Points - PP: 60/200 Points

Dimension: 77×45×13(mm)

Blister Cell



Code: P.61

• Regular Packing Points: 180 / 200 Points

• **Dimension**: 163×54×11(mm)

Available for PP only

Metapex

Calcium Hydroxide with lodoform





Applications

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

Composition

• Calcium Hydroxide, Iodoform, Silicon oil

Advantages

- Excellent antibacterial effect and radiopacity
- Premixed paste
- Syringe type for easy delivery of the paste into the canal
- Disposable tips for prevention of cross-contamination

Components

- 2.2g paste in a syringe (2 syringe packing available)
- Disposable tips
- One ring rotator for direction control of the tip
- Dimension: 228×61×22(mm)
- Weight: 46g

Shelf life

• Two years from the production date.

Clinical Cases

Apexification

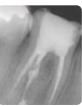


Pulp necrosis on #21 of 8 year-old boy took place by trauma.



About 1 year after Metapex treatment

Root Resorption



Internal resorption on disto-lingual root



Root perforation by inflammatory resorption

Metapaste

Calcium Hydroxide with Barium Sulfate



Applications

- · Weeping canal
- Formation of a hard tissue barrier(Apexification)
- Temporary root canal filling
- Internal & external root resorption

Composition

• Calcium Hydroxide, Barium Sulfate, Poly Propylene Glycol

Advantages

- Easy cleaning and removing with good water
- Excellent antibacterial effect and radiopacity
- Premixed paste
- Syringe type for easy delivery of the paste into the canal
- Disposable tips for prevention of cross-contamination

Components

- 2.2g paste in a syringe (2 syringe packing available)
- Disposable tips
- One ring rotator for direction control of the tip
- Dimension: 228×61×22(mm)
- Weight: 46g

Shelf life

• Two years from the production date.

Clinical Cases

Apexification

Before treatment

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



Metapaste filling



Three months later

- after removal of the paste, it shows a formation of the apical barrier



Six months later

- Excellent healing without further root resorption

To locate real apical foramen

About 1-2 months after, X-ray shows exactly where the real apical foramen is.

ADSEAL[™]

Resin Based Sealer





Applications

- Permanent root canal sealing
- Thermal obturation

Composition

- Base-Epoxy oligomer resin, Ethylene glycol salicylate, Bismuth subcarbonate
- · Catalyst-poly butanediol aminobenzoate, Calcium Phosphate, Bismuth subcarbnate

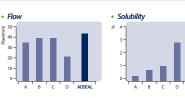
Advantages

- Excellent biocompatibility
- Easy to mix paste-paste
- Hermetic sealing ability
- Nonstaining to the teeth
- Insoluble in tissue fluids
- Good radiopacity

Components

- 13.5g dual syringe Base 9g (Epoxy resin, Calcium phosphate) Catalyst 4.5g (Amines, Bismuth subcarbonate)
- Spatula
- Mixing Plate
- Dimension: 55x180x40(mm)
- Weight: 98g

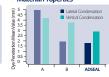
Physical and Chemical Properties











- Working Time: 35 Minutes at 23℃ (73°F)
- Setting Time: 45 Minutes at 37°C (99°F)
- Film Thickness: 3.3 μ m

Shelf life

Z·O·B Seal

Zinc Oxide Based Root Canal Sealer





Applications

• Permanent root canal sealing

Composition

- Powder-Zinc Oxide, Rosin, Bismuth subcarboAnate
- Liquid-Eugenol, Olive oil

Advantages

- Good adhesion to tooth material
- Good mixing consistency
- Excellent radiopacity
- Excellent anti-bacterial effect

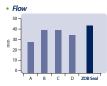
Components

- Powder 15g (Zinc Oxide)
- Liquid 7ml (Eugenol)
- Spoon
- Mixing Pad
- Dimension: 63×81×70(mm)
- Weight: 84g

Shelf life

• Two years from the production date.

Physical and Chemical Properties









Radiopacity	5.18mm/mmAl
Solubility	0%

Test Method: ISO 6876 - Dental root canal sealing materials

MD-ChelCream

Viscous Chelator / EDTA Gel





Applications

- Root canal preparation with files and reamers
- Presence of calcifications in the canal
- Narrow canals in posterior teeth
- Smear layer removal

Composition

• EDTA, PEG

Advantages

- Removal of inorganic substances by chelation (EDTA-Ca²⁺)
- Easier filing with lubricating action
- Produces the cleanest canal wall after smear layer removal

Components

- MD-ChelCream 7g(5.4ml)×2
- Disposable tips
- Dimension: 186×45×30(mm)
- Weight: 59g

Shelf life

MD-Cleanser[™]

Smear Layer Remover / EDTA Solution



Applications

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

Composition

• EDTA, Water, Ammonia water

Advantages

- Removal of inorganic substances by chelation (EDTA-Ca 2+)
- Easier instrumentation by softening dentin canal wall
- Produces the cleanest dentinal walls after smear layer removal

Components

- MD-Cleanser: 100 ml
- 1cc syringe
- Disposable tips
- Dimension : 50 x 115 x 55 mm
- Weight: 138g

Clinical Case



Application Method



After root canal preparation



After MD-Cleanser application (x1000)



After MD-Cleanser application (x7000)

Shelf life



Meta Biomed Endodontic Equipment



i-Root

Electronic Apex Locator





 i-ROOT is the 5th generation Apex Locator by dual frequency type. i-Root can measure the apical constriction exactly without mismeasurement.

	Battery	Moniter connection
i-Root S	Rechagable Battery	0
i-Root A Rechagable Battery		X
i-Root 100 A2 Battery(3ea)		Х

Advantages

- Best accuracy in any root canal condition (Dry, Bleeding, Wet, Saline, EDTA, NaOCI or Chlorhexidine etc...)
- Simultaneous visual and sound measurement
- Color display
- Stylish and ergonomic design
- Simple and easy to use
- Self test for the system checking
- Auto power off function
- Stable and durable in wide range of condition
- Computer monitoring & Patient Management

Specifications

Dimensions	W110×D100×H117mm
Screen	W79×D70mm
Battery	Lithium-lon, DC8.2V 2200mAh
Continuous use	60 hours
AC-Adapter	AC 100 ~ 240V, (50 ~ 60Hz)
Weight	390g

Components

- 1 i-ROOT main unit
- 1 Probe cord
- 1 File holder A
- 2 File holder B
- 5 Lip clips

ROOTOR

Electronic Apex Locator



- 2.5D Patient Management Software, Fast, Reliable, Precise measurement results reduces need for X-Ray maximum portability for easy and quick working length gauging.
- Accuracy guaranteed by the latest multiple frequency technology meets hand-held size for the best efficiency of your endodontic treatment.

Advantages

- Accuracy in any root canal conditions (Dry, bleeding, wet, saline, EDTA, NaOCI, Chlorhexidine and etc)
- Color display
- Stylish and ergonomic design
- Auto power-off for saving battery life
- Stability and measurement reliability

Specifications

Rated voltage	DC 4.5 V (Alkaline battery size AAA DC1.5V x 3ea)
Input current	less than DC 60mA
Power consumption	less than 0.27 VA
Patient auxiliary current	less than AC 10uA
Oscillation frequency	500Hz±0.2Hz, 5kHz±0.002kHz
Protection type and leve against electric shock	inner Power Type Equipment, Type B Equipment

Components

- 1 Rootor
- 1 Probe cord
- 5 Lip clip
- 2 File holder B
- 1 Holder

ES-100 Endo Motor





Advantages

- Auto reverse on / off functions
- Torque setting : 0.6~6.4Ncm (Changeable by Gear Ratio)
- Slim & compact handpice

Specifications

Contra Angle

Dimension	ø16.7 x L63mm
Weight	34.8g
Rated Input	16:1

Motor

Dimension	ø20 x L108mm
Weight	34.8g
Rated Input	13,000 RPM

EQ-V

Cordless Root Canal Obturator







Unique Structure of EQ-V Fill





EQ-V Fill Kit (Disposable)

EQ-V Pack Kit

Advantages

- Chemically Resistant & Ergonomically Designed Body (remain intact after 1 week of immersion in cavitcide)
- Durable & Flexible GP Cartridge (Both Disposable & Refill Cartridge is available)
- Easy maintenance due to unique structure
- Outstanding Heating Performance (Fill: 35Sec to reach 200C, Pack: Instantly reaches set temperature)

Specifications

Fill

Weight	177g(Including Battery)
Operating Voltage	3.7V
Setting Temperature	160 or 200°C
Auto Shutoff	5 minutes

Pack

Weight	90g(Including Battery)
Operating Voltage	3.7V
Setting Temperature	180 or 230°C
Auto Shutoff	5 minutes

Type

		Contents												
Туре	Fill Unit (Refil Type)	Fill Unit (Disposable Type)	Pack Unit	Battery	Single Charger	Dual Charger	Pack Tip (F / FM) (1pack)	Cartridge (25G)	Disposable Cartridge (25G) (10pcs/1pack)	Bending Tool	Cleaning Tool	AC Adapter	Power Cord	GP bar (100pcs/ Bottle)
EQ-V Full Kit (Refill)	0		0	0		0	0	0		0	0	0	0	0
EQ-V Full Kit (Disposable)		0	0	0		0	0		0	0	0	0	0	
EQ-V Fill Kit (Refill)	0			0	0			0		0	0	0	0	0
EQ-V Fill Kit (Disposable)		0		0	0				0	0	0	0	0	
EQ-V Pack Kit			0	0	0		0					0	0	

GENESYS

Motorized cordless Obturator





Advantages

- Convenient cordless device using battery
- Cordless & electric motorized filling system
- New cartridge needle to refill GP pellet
- 360° rotation at both cartridge needle & pack tip
- High capacity lithium-ion battery
- Simple, easy & quick to use

Specifications

Pack

Dimension	153mm x 27mm x 25mm (WxLxH)	
Weight	90g (Including battery)	
Operating Voltage	3.7V	
Range of setting temperature	140 ~ 400°C	
Auto off	5min	

Battery

- Samsung SDI Co., Ltd. 1CLR18650-26C++ 3.7V 2600mAh,
- Lithium-ion battery

Charger

- Input : 9.0V
- Single charger size : $165 \text{mm} \times 80 \text{mm} \times 47 \text{mm} (W \times L \times H)$
- Twin charger size: 230mm x 80mm x 47mm (WxLxH)

E:11

Dimension	223mm x 27mm x 26mm (WxLxH)
Weight	177g (Including battery)
Operating Voltage	3.7V
Range of setting temperature	140 ~ 200°C
Auto off	5min

Adapte

• Model: Bridge Power JMW118KA0900F02

• Input: 100-240V, 50/60 Hz

• Output: 9.0V, 2.0 A

Size: 84mm x 46mm x 32mm

Downpack with Pack



 Fit a master apical cone that matches the taper of the canal being obturated and check it makes a tug back.



 Marked length select a Pack Tip and plugger 4-6mm shortly inserted than working length.



 Cement master cone to 3mm, insert it to root canal and cut the excess over the orifice using the Pack Tip with gutta percha to 4~6mm short of the working length.



 Harden the melted gutta percha with pre-selected plugger. Now apical area & accessory canal are perfectly obturated.

Backfill with Fill



 After inserting the Fill Cartridge into the Root Canal, wait for 5 seconds after inserting Gun Needle to root canal.



 Pull the trigger slowly and fill the gutta percha up to root canal.
 Fill Cartridge would be pushed by filled gutta percha naturally.



Harden the heated gutta percha with biqqer pluqqer.



8. Now, the entire root canal is fully obturated.

Clinical Cases



Mandibular right 1st molar, mesial 4 orifices



Mandibular left 1st molar, 'S' curved distolingual canal



Mandibular left 2nd molar, C-shape canal

Courtesy of PS Kim, DDS, MSD, Ph D.

EMS-200

All-in-one Endo System



Endo Motor Features

- Auto-reverse mode
- Torque control from 0.6 to 6.4Ncm
- Long shelf life with swiss motor
- 10 Memory saving function

Backfill Feature

- Easy install for fill needle
- 360° rotating cartridge needle
- Fully motorized obturation for smooth filling
- Long shelf-life with swiss motor
- Comfortable grip with ergonomic design
- Auto reverse function when cartridge is empty
- Automatic off after 5 minutes

Apex Locator Features

- Best accuracy in any root canal
- Self test for system failure
- Simple, easy to use
- Color display

Down Pack Feature

- 360° rotating for pack tip
- Outstanding heating performance (Max. 400 $^{\circ}$ C)
- Comfortable grip
- Hold switch for safety
- Temperature range (140~400 ℃) displayed in LED window
- Automatic off after 5 minutes

Type per customer's request

















Meta Biomed Restorative solution



Biner LC

Light curing type cavity liner





Applications

- Protect pulp of the tooth
- Lining under all filling materials
- Protection when applying the total etch technique

Composition

- Hydroxy calcium phosphate, UDMA, Photoinitator
- Barium aluminium silicate

Advantages

- Excellent biocompatibility with dentin and pulp
- Light curing type cavity liner, cure extremely hard
- Chemically bonds to adhesives an composites
- Insoluable in water and oral fluids
- Radiopacity
- Flow-on-demand handling and easy dispensing
- Heating Barrier

Physical properties

Flexural strength	More than 100 MPa
Sensitivity to ambient light	Homogeneous for 60s
Linear Expansion	2~3 %
Radiopacity	Yes
Depth of Cure (40 sec.)	2mm

Components

- Biner LC 2g X 2 Syringes
- 10ea disposable tips

Shelf life

30 • Etchant / Meta Etchant

Meta Etchant

37% Phosphoric Acid



Applications

• Conditioning of surface for dentine and enamel with composite and inlay / onlay

Composition

• Phosphoric acid, H2O, Xanthan gum

Advantages

- Polymer thickened gel
- Easy dispensing and application
- No residue, rinse out completely
- Thixotropic characteristics(not runny)

Components

• 3g X 3Syringes, 20 tips

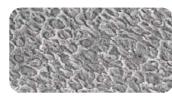
Shelf life

• Two years from the production date.

Enamel SEM



Before Meta Etchant application(x2000)



After Meta Etchant application(x2000)

Bonding / Meta P&Bond

Meta P&Bond

5th Generation Bonding System





Applications

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

Composition

• Bis-Gma, PMGDM, 2-Hydroxyethylmethacrylate, Ethyl alcohol

Advantages

- Superior bonding strength
- 5th Generations Adhesive
- One step priming and bonding
- Ethanol base adhesive
- Wet bonding type

Physical Properties

- Dentin shear bonding strength 10.75MPa
- Enamel shear bonding strength 30.76MPa

Components

- Meta P&Bond 5g
- Micro brush 10EA

Shelf life

Nexcomp

Nano Hybrid Composite Resin



Unidose Type is Available

Applications

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

Composition

- Bis-Gma, UDMA, Bis-Ema
- Barium aluminium boro silicate

Advantages

- Low 1.6% shrinkage for superior marginal integrity Various shade
- Filled with 40 nano sized filler for excellent polishability
- · Optimum handling Excellent Sculptability for restoring natural shape and function.
- Non-Slumping. Non-Sticky

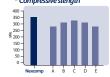
Components

- Nexcomp Kit
- 4g x 7 Syringe (A1, A2, A3, A3.5, B2, A2E, B2E)
- Meta P&Bond 5g
- Meta Etchant 3g
- Nexcomp Refill
- 4g x 1 Syringe (A2E, B2E, A1, A2, A3, A3.5, A4, B1, B2, B3, C2, C3, D2, D3, TL, WT, OP, OA2, OA3)q

Nexcomp Bis-GMA, Bis-EMA, Urethane Principle organic component of polymer base Triethylene glycol dimehacrylate - Range of dimensions of 0.04 to 0.7 µm inorganic filler particles percentage by volume of total 54 vol.% Specification required of Light curing device: usual dental halogen/LED lamps with light Recommended external intensity of more than energy source 400mV/cm² and wavelength range of 430~480nm

Physical and Chemical Properties







Clinical Cases











▲ complete Necomp ▲ After restoration restoration

Shelf life

• Three years from the production date.

Nexcomp Flow

Nano Hybrid Flowable Composite Resin





	Nexcomp Flow	
- Principle organic component of polymer base	Bis-GMA, Bis-EMA, Urethane dimethacrylate, Triethylene glycol dimehacrylate	
- Range of dimensions of inorganic filler particles	0.04 to 0.7 µm	
percentage by volume of total inorganic fillers	37 vol.%	
Recommended external energy source	Specification required of Light curing device: usual dental halogen/LED lamps with light intensity of more than 400 ml/cmi and wavelength range of 430–480 mm	

Applications

• Restoration of invasive cavity Pits and fissure sealing Base and Liner for direct restoration Repair acrylic temporary materials Repair of esthetic indirect restorations

Composition

- Bis-Gma, UDMA, Bis-Ema TMPTMA
- · Barium aluminium boro silicate

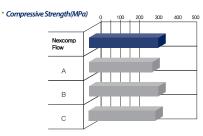
Advantages

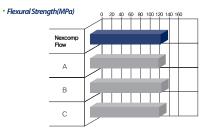
- Low viscosity, light-cured, radiopaque flowable composite resin for minimally invasive cavity preparation.
- Filled with 40nano sized filler for excellent polishability
- Flow on demand handling
- Excellent Radiopacity
- Available in 14 shades including opaque and translucent
- No slumping and running

Components

- Nexcomp Flow set
- 2q X 5 syringes(A2, A3, A3.5, B2, B3), 20ea disposable tip
- Nexcomp Flow set
- 2g X 2 syringes(A1, A2, A3, A3.5, A4,B1, B2, B3, OA2, OA3, C2, D2, WT, TL), 10ea disposable tip

Physical and Chemical Properties





Shelf life

NexPost

Fiber post



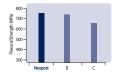
Advantages

- Radiopaque
- Translucent
- Opitimal flexural strength(close to dentin)
- Excellent light translucency for efficient light cure deep into the root canal

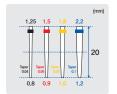
Composition

- Glass Fiber
- Bis-GMA based composite resin

Strength test



Sizes



Components

- NexPost Kit (Post x 20, Drill x 5)
- NexPost Refill (Post x 5)
- NexPost Drill Refill (Drill x 1)

Physical and Chemical Properties

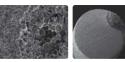




Light Transmission

on Radiopacity

Scanning Electron Microscope





Glass fiber
Composite resin matrix

Shelf life

• Three years from the production date.

NexCore[™]

Dual-cured core build-up Meterial





Applications

Post adhesions and core build-up in restorations

Advantages

- Suitable viscosity and flow for post cementation and core build-up
- Dual curing: Light-curing and self-curing are possible so there is no need to worry about the polymerization failure of resin
- Biocompatibility (ISO10993)
- Easy to mix by auto-mixing type,
 Direct injection: Intraoral-Tip, Endo-Tip
- Radiopaque
- 3 Shade (Tooth, White: Ceramic restoration Blue: Metal restoration)
- Cuttability likes dentin (Flexural modulus: NexCore 14.2GPa)
- Three years from the production date

Components

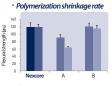
- NexCore Cartridge 50g paste 1ea, Automix-tip 30ea, Intraoral-tip 30ea
- NexCore Cartridge Refill 50g paste 1ea (Shade: Tooth, White, Blue)
- NexCore Dual Syringe 9g paste 2ea, Automix-tip 20ea, Intraoral-tip 10ea, Endo-tip 10ea
- NexCore Dual Syringe Refill 9g paste 1ea (Shade: Tooth, White, Blue)

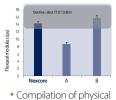
Physical Properties

- Composition
 Barium glass, Ytterbium trifluoride, fumed silica in a
 Bis-GMA based matrix of dental resins
- Physical Properties

i Trysteat i Toperties				
Working time	1:50 ~ 2:20 min			
Setting time	4:00 ~ 5:00 min (Self-cure) 20 ~ 40 sec (Light-cure)			
Flexural strength (light curing)	115.52 MPa			
Water Sorption, Solubility	16.5/ 2.3 μg/mm²			
Radio-opacity	Optical density was equivalent with optical density at 4.2mm aluminum step wedge			
Shade and color stability	No change in color and identical to the shade guide.			

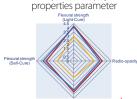
- *Tested in accordance with ISO 4049
- Flexural strength, modulus





Radio-opacity





Flexural modulus

Competitor A —Competitor B —NexCore

Metacem

Dual-Cured Resin Cement



Applications

- Crowns & Bridges (ceramic, composite, porcelain)
- Inlay/Onlay cementation
- Bonding for porcelain veneers

Composition

- Base-Bis-Gma, TEGDMA, Barium aluminium boro silicate
- Catalyst--Bis-Gma, TEGDMA, Barium aluminium boro silicate

Advantages

- Easy to use for cosmetic indirect restorations.
- Provides high resistance to compressive force.
- Provides a dual-cure for highly shaded, thick or opaque cementation.
- 5 shades correspond with shade guide. [A1, A3, B2, TL(Translucent white), OP(Opaque)]

Components

1. Metacem set

- 2 Dual syringe(A3, Translucent white shade, 9g/ea)
- P&Bond 5q
- Etchant 3g
- 20 Mixing tips
- 20 Etchant disposable tips
- Spatula
- Mixing pad paper

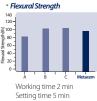
• 10 Adhesive brush

2. Metacem Refill

• 1 Dual syringe(A1, A3, B2, Translucent white, Opaque, 9g/ea)



Physical and Chemical Properties





Flexural strength 99 MPa Radiopacity 2.33mm Al/mm

Film thickness < 21 µm Water absorption 29.3 µg/mm² Water solubility 2.3 µg/mm³

Compressive Strength



Shelf life

• Two years from the production date.

MD-Temp Plus

Hydraulic Temporary Restorative





Applications

• Temporary cavity filling

Composition

• Polyvinyl Acetate, Zinc Oxide, Zinc Sulfate, Ethanol

Advantages

- Easy application and removal
- Hermetic seals the cavity
- Excellent stability when set
- Proper crush strength

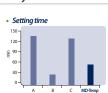
Components

- 40g White or Pink paste in a jar
- Dimension: 38x41x39(mm)
- Weight: 55g

Shelf life

• Two years from the production date.

Physical and Chemical Properties



NexTemp HV / NexTemp LC

A light-cured temporary filling materials



Applications

- Temporary restoration of prepared cavity(1~6days)
- Temporary filling sealing of cavities

Advantages

- High elasticity
- Easy application
- Tightness for margin sealing
- Easy removal

How to use

Component

- NexTemp HV: 3.0g Syringe x 3ea
- NexTemp LC: Syringe 2.0g paste 3ea, Disposable Tip 10ea

Shade

- NexTemp HV: TL, Blue
- NexTemp LC :TL, Blue, Yellow

Shelf life

- Nextemp HV: Two years from the production date
- Nextemp LC: Three years from the production date

NETC

Non-Eugenol Temporary Cement





Applications

• Temporary cementation of crown&bridges

Composition

- Base-Zinc Oxide
- Catalyst-Rosin, Nonanoic acid

Advantages

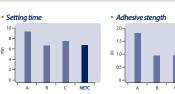
- Working time: 1.5 min
- Setting time: 6min
- Especially suitable for patients who are sensitive to eugenol.

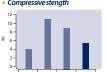
- Paste-paste tube type

Components

- Tube Type : Base 40g, Catalyst 14g, Mixing Pad
- Dual Syringe Type: 11g x 2ea, Mixing tip x 2ea, Cap x 2ea, Mixing Pad

Physical and Chemical Properties







ullet NETC complies with the requirments of ISO 3107 (Type I $\,$, Class 2B)

Shelf life

MD-flex[™]

Polyvinylsiloxane Impression Material



Applications

• Cavity impression of veneer, inlay, onlay Impression of crown or bridge, partial denture

Advantages

- Impression of crown or bridge, partial denture.
- Accurate impression without bubbles because of hydrophilic property.
- Gypsum model will be effectively reproduced without transformation due to an excellent reproducibility and volume stability.
- Biocompatibility. (ISO10993)
- This product is compatible with other Polyvinylsiloxane Impression Materials.
- Easy to mix by auto-mixing type.

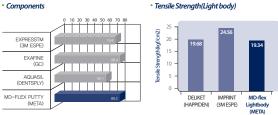
Shelf Life

• Two years from the production date

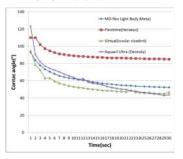
Components

Туре	Contents
Putty	Base 450g, Catalyst 450g Measuring spoon 2ea
Heavy	50ml Cartridge x 2ea, Automix tip 6ea
Heavy	Bulk Package 4 and 10 Cartridge(without mixing tips)
Regular	50ml Cartridge x 2ea, Automix tip 6ea, Intra oral tip 6ea
Negulai	Bulk Package 4 and 10 Cartridge(without mixing tips, oral tips)
Light	50ml Cartridge x 2ea, Automix tip 6ea, Intra oral tip 6ea
Light	Bulk Package 4 and 10 Cartridge(without mixing tips, oral tips)

Physical Property



Contact Angle(Light Body) Hydrophilic Characteristic



Working/Setting Time

Working time(23°C)		Setting Time(37°C)
Putty	60 Sec	4 Min
Heavy	90 Sec	4 Min
Regular	90 Sec	4 Min
Light	90 Sec	4 Min

Nexsi Bite

Bite Registration





Advantages

- Fast setting material offers a rock hard set creating excellent occlusal records
- Easy to trim and grind due to the material's high final hardness of 90 Shore-A and high fracture toughness
- Delivers excellent results when capturing images with intra-oral scanning devices
- Biocompatibility (ISO 10993)
- Easy to mix by auto-mixing type

Shelf life

• Three years from the production date

Applications

• Used to create occlusal in the mouth

Physical Properties

Work time(23°C)	Set time(23°C)	Shore A
40 seconds	90 seconds	90

Components

• Cartridges 50 ml x 2

Nexsi Soft

Transparent Silicone







Advantages

- Light cured after transparent silicone material
- Excellent elastic recovery and tear strength after hardening Easy to remove
- Accurate modeling without bubbles on the surface

Physical Properties

Work time(23°C)	Set time(23°C)	Shore A
Within 45seconds	5 min	54

Shelf life

• Three years from the production date

Applications

- Confirmation of occlusal status
- Transfer key for adhesion of calibration bracket
- Matrix for light curing

Components

• Cartridges 50 ml x 2



Meta Biomed **Bone Graft**





BoneMedik-DM Bone

Silicon Ion Containing 60% HA, 40% β -TCP





Applications

- Periodontal defects
- Intrabony defects
- Ridge augmentation
- Extraction sites(Implant preparation/placement)
- Sinus lift
- Cystic cavities

Advantages

- Silicon ion containing porous Hydroxyapatite (Si-Content:Avg.0.6 wt%)
- Optimum balance between HA and β -TCP in the ratio(%), 60:40
- Silicon ion technology speeds up the Bone Regeneration & Heal Activation
- Outstanding Biocompatibility(No Biological Rejection, No Disease Transmission)
- Excellent Osteoblastic Activity with wide surface area:72% Porosity

Package Specifications (1vial / box)

	SIZE	Weight					
	0.3 ~ 0.5mm	0.25g	0.5g	1.0g	2.0g	5g	10g
ı	0.5 ~ 1.0mm	0.25g	0.5g	1.0g	2.0g	5g	10g
	1.0 ~ 2.0mm	0.25g	0.5g	1.0g	2.0g	5g	10g

Implant Case

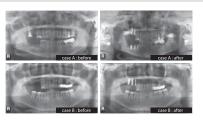






Figure 1. Clinical and radiographic view during surgery. Intrabony defect(Left), BoneMedik-DM placed into intrabony defect.





Figure 2. Clinical view.
Pre-operative(Left) and Six months post operative(Right) clinical





Figure 3. Radiographic view of test group.
Pre-operative(Left) and Six months post operative radiographic(Right)





Figure 4. Radiographic view of control group. Pre-operative(Left) and six months post operative radiographic(Right)

Sorbone

100% β-TCP



Applications

- Periodontal defects
- Intrabony defects
- Ridge augmentation
- Extraction sites(Implant preparation / placement)
- Sinus lift
- Cystic cavities

Advantages

- Excellent osteoconductivity
- Speed up the bone regeneration & heal activation
- · Outstanding biocompatibility (No biological rejection, No disease transmission)
- · Accurate and problem-free implantation
- Easy handling
- Porosity: 55~60%

Implant Case





Fig. 1. Radiographic view of before implantation(Left), and after implantation(Right)

SEM Observation of Sorbone







GBR(Window Opening)









Package Specifications

Vial type

SIZE	Weight			
0.3 ~ 0.5mm	0.25g	0.5g	1.0g	2.0g
0.5 ~ 1.0mm	0.25g	0.5g	1.0g	2.0g
1.0 ~ 2.0mm	0.25g	0.5g	1.0g	2.0g

Syringe type

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

SorGuide

Absorbable Periodontal Regeneration Induction Membrane





Advantages

• Safety materials: High purified type I collagen membrane derived from porcine tissue



• Excellent adhesion : Excellent adhesion to bone loss section by good flexibility

B product



· Highly Porosity: SorGuide™

≈ 70%	≈ 50%

Size

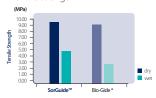
- TG-1 (15mm x 20mm)
- TG-2 (20mm x 30mm)
- TG-3 (30mm x 40mm)

Comparative

Biodegradable time

Brand	Biodegradable time
SorGuide™	3~5 months
B product	2~4 months

Tensile strength



Clinical Case

• Used to create occlusal in the mouth

















* Bio Guide Not a Meta Biomed trademark