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Dental Product's General Catalogue

Dental Materials | Dental Equipments

ENVISION THE FUTURE

ENVISION THE FUTURE

DIAMOND QUALITY

GOLD SERVICE

SILVER PRICE

We appreciate your visit to the **META BIOMED**

Meta Biomed, founded in 1990, is the premier endodontic and restorative supplies and one of the most renowned dental and suture suppliers in Korea. During the past decade, Meta Biomed has reshaped the domestic dental care landscape. With a period of rapid growth, Meta Biomed created a genuinely integrated dental care and suture supplies and aggressively recruited superb researchers to develop internationally renowned supplier in endodontics, dental devices, suture materials and bone graft substitutes.

Meta Biomed's standing as one of the nation's outstanding dental and suture suppliers is a source of civic pride.

The region benefits from Meta Biomed's many charitable contributions and its broad array of community-based programs.

A passion for innovation lies at the heart of Meta Biomed's success. Through such innovation, it has already launched a portfolio of new business in antibacterial suture materials, bone filler, bone cement, joint stem-cell development, hernia mesh and neural canal.

With a culture that embraces change and encourages innovation, Meta Biomed strives for excellence in everything we do and believe that each member of the staff is responsible for the continuous improvement of quality in all aspects of the services we provide.

Meta Biomed is committed to understanding and satisfying the expectations and requirements of our customers as our vision "Envision the Future" with Diamond Quality, Gold Service and Silver Price.

CEO. ***Tony Oh***

Dental Product's General Catalogue

World Wide Marketing Department, Dental Business Group | **METABIOMED CO., LTD.**



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ENVISION THE FUTURE

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Dental Materials



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Gutta Percha Points

Special Taper Points

.04, .06, .08 Taper Gutta Percha Points



Time saving with easy filling
For faster and easier root canal obturation
Variable tapers & sizes
Length marking available

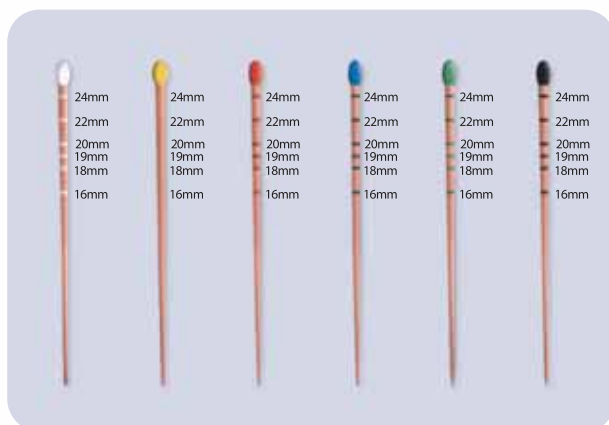
- Excellent radiopacity
- Long shelf life and freshness assured
- Suitable for vertical and lateral condensation

Available Sizes

- .04 Taper : 15 - 90
- .06 Taper : 15 - 80
- .08 Taper : 15 - 40

Length Marked | Patent No. : US 7097454

For Accurate Depth Measurement and Insertion



Uniform and non-distorting crimp
Variable sizes and packages available

Non-Standardized (Accessory Sizes)

- Accurate insertion of the working length
- No need to mark working length on the points (Assurance of the accurate insertion after filling)
- Time saving with safe, easy and fast filling
- Variety in the selection of sizes and packaging available

Available Sizes

- ISO sizes : 8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100, 110, 120, 130, 140
- Non-Standardized (Accessory sizes): XF, FF, MF, F, FM, M, ML, L, XL
- Special Taper Points : .04, .06, .08

Regular

Made from the Finest Gutta Percha, Uniformly Hand Rolled



- Stiff but flexible to provide ideal working qualities
- Uniform and non-distorting crimp
- Excellent radiopacity
- Long shelf life and freshness assured
- Suitable for vertical and lateral condensation
- Variety in the selection of sizes and packaging available

Available Sizes

ISO Standardized

8	55
10	60
15	70
20	80
25	90
30	100
35	110
40	120
45	130
50	140

Asst. 15/40, 45/80

Non-Standardized (Accessory Sizes)

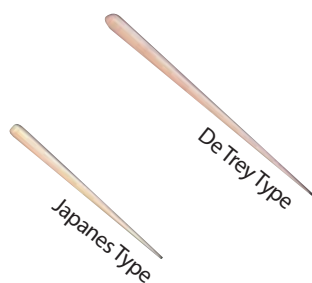
X-Fine, Fine-Fine,
Medium-Fine, Fine,
Fine-Medium, Medium,
Medium-Large, Large,
X-Large

- Any size assortment is available.

Special

Japanese, De Trey Type & ENDO Organizer

Japanese & De Trey Type Gutta Percha Points



- **Point** : 100 Points / Box
- **Size** : - 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

Endo Organizer



- **Code** : P11
- **Spill Proof** 12 Compartments
- **Size** : ISO 15 - 80
- **Color Coded** Available
- 240 Points

Available Packaging Available Packaging

6 Compartment Dispenser



- Code : P21
- Regular Packing Points : 120 Points
- Dimension : 84×51×13(mm)

6 Vial Packing (Round)



- Code : P31
- Regular Packing Points : 120 Points
- Dimension : 84×51×16(mm)

6 Vial Packing (Square)



- Code : P31
- Regular Packing Points : 120 Points
- Dimension : 84×51×16(mm)

4 Compartment Dispenser



- Code : P51
- Regular Packing Points : 100 Points
- Dimension : 77×45×13(mm)

- Private labels are available in all packages.

Sliding Type Dispenser



- Code : P71
- Regular Packing Points : 120 Points
- Dimension : 70×45×12(mm)

Absorbent Paper Points

Sterilized
Hand Rolled for Extra Absorbency



- Highly absorbent
- Sterilized individual packages
- Variety sizes and packages available
- Color Coded

Available Sizes

TYPE	SIZES
Standardized (ISO Specifications)	8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100, 110, 120, 130, 140
Non - Standardized (Accessory Sizes)	XX-Fine, X-Fine, Fine, Medium, Coarse, X-Coarse
Special Taper (.04, .06, .08)	15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80

6 Compartment Dispenser



- Code : P21
- Regular Packing Points : 180/200 Points
- Dimension : 84x51x13(mm)

Available Packaging

Sliding Type Dispenser



- Code : P71
- Regular Packing Points : 180/200 Points
- Dimension : 70x45x12(mm)

6 Vial Packing (Square)



- Code : P31
- Regular Packing Points : 180/200 Points
- Dimension : 84x51x16(mm)

6 Vial Packing (Round)



- Code : P31
- Regular Packing Points : 180/200 Points
- Dimension : 84x51x16(mm)

4 Compartment Dispenser



- Code : P51
- Regular Packing Points : 200 Points
- Dimension : 77x45x13(mm)

Blister Cell



- Code : P61
- Regular Packing Points : 180/200 Points
- Dimension : 163x54x11(mm)
- Private labels are available in all packages.

Metapex

Calcium Hydroxide with Iodoform

Temporary Root Canal Filling Material with Excellent Radiopacity

- New Package



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 : 228x61x22(mm)
- Weight : 83g

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
Water Soluble Temporary Root Canal Filling Material

● New Package



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 solubility
- 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 : 228x61x22(mm)
- Weight : 83g

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 of the apical third



Metapaste filling

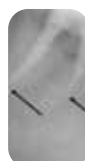


Three months later
- after removal of the paste, it shows a formation of the apical barrier



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 Root Canal 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 subcarbonate

Advantages

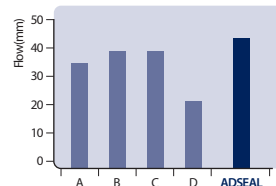
- Excellent biocompatibility
- Easy to mix paste-paste
- Hermetic sealing ability
- Nonstaining to the teeth
- Insoluble in tissue fluids
- Good radiopacity

Components

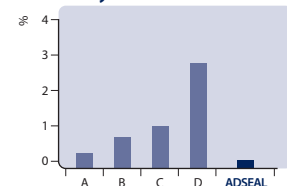
- 13.5g dual syringe
Base 9g (Epoxy resin, Calcium phosphate)
Catalyst 4.5g (Amines, Bismuth subcarbonate)
- Spatula
- Mixing Plate
- Dimension : 55x180x40(mm)
- Weight : 135g

Physical and Chemical Properties

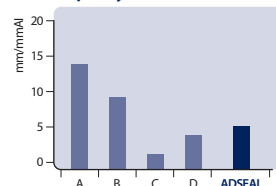
Flow



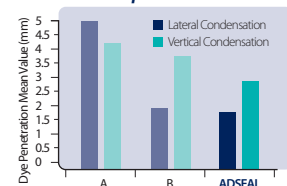
Solubility



Radiopacity



Material Properties



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

Shelf life

- Two years from the production date.

Z · O · B Seal

Zinc Oxide Based Root Canal Sealer

● New Package



Applications

- Permanent root canal sealing

Composition

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

Advantages

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

Components

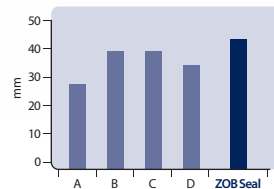
- Powder 15g (Zinc Oxide)
- Liquid 7ml (Eugenol)
- Spoon
- Mixing Pad
- Dimension : 63x 81x 70 (mm)
- Weight : 133g

Shelf life

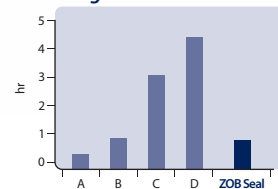
- Two years from the production date.

Physical and Chemical Properties

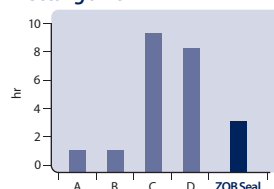
Flow



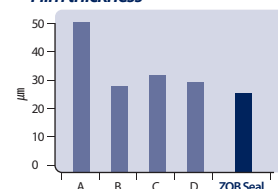
Working time



Setting time



Film thickness



Radiopacity	8mm/mmAl
Solubility	0.07 %

Test Method : ISO 6876 - Dental root canal sealing materials

- New Package



MD-Cleanser™

17% EDTA Solution

Excellent Smear Layer Removal

Applications

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

Composition

- EDTA, Water, Ammonia water

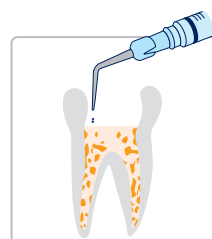
Advantages

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

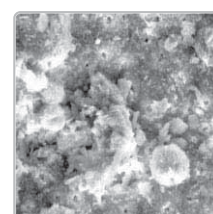
Components

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

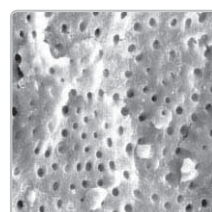
Clinical Case



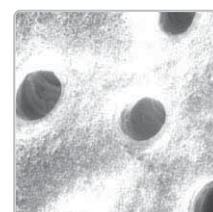
Application Method



After root canal preparation



After MD-Cleanser application (x1000)



After MD-Cleanser application (x7000)

Shelf life

- Two years from the production date.

MD-ChelCream

19% EDTA Cream

Easier Filing with Lubricating Action

- New Package



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

Components

- MD-ChelCream 7g(5.4mℓ)×2
- Disposable tips
- Dimension : 186×45×30(mm)
- Weight : 72g

Advantages

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

Shelf life

- Two years from the production date.

MD-Temp

Hydraulic Temporary Restorative

- New Package



Applications

- Temporary cavity filling

Composition

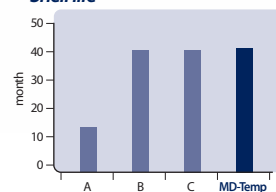
- Polyvinyl Acetate, Zinc Oxide, Zinc Sulfate, Ethanol

Advantages

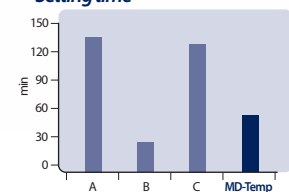
- Easy application and removal
- Hermetic seals the cavity
- Excellent stability when set
- Proper crush strength

Physical and Chemical Properties

Shelf life



Setting time



Components

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

Shelf life

Two years from the production date.

NETC

Non-Eugenol Temporary Cement



● New Package

Applications

- Temporary cementation of crown&bridges

Composition

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

Advantages

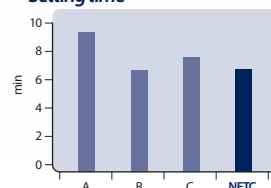
- Easy to mix by paste-paste type
- 1.5 minutes working time after start of mixing.
- 6 minutes setting time after start of mixing.
- Especially suitable for patients who are sensitive to eugenol.

Components

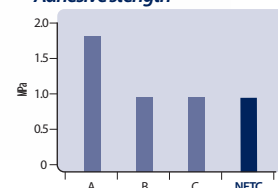
- Base 60g(Zinc Oxide, Mineral Oil),
- Catalyst 20g(Rosin)
- Base 40g, Catalyst 14g
- Mixing Pad
- Weight : 160g, 120g
- Dimension : 64 × 141 × 28(mm)
64 × 106 × 28(mm)

Physical and Chemical Properties

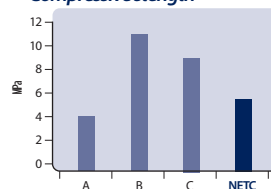
• Setting time



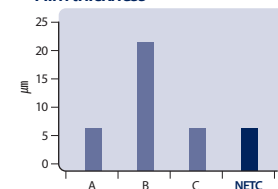
• Adhesive strength



• Compressive strength



• Film thickness



- NETC complies with the requirements of ISO 3107 (Type , Class 2B)

Shelf life

- Two years from the production date.

Metacem

Adhesive Resin Cement

High strength permanent dual cure resin cement



● New Package

Applications

- Crowns & Bridges (ceramic, composite, porcelain)
- Inlay/Onlay cementation
- Bonding for porcelain veneers
- Endodontic posts cementation
- Core-build up

Composition

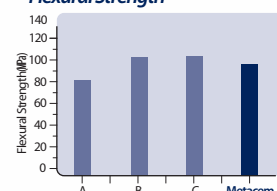
- Base-Bis-Gma, TEGDMA, Barium aluminium boro silicate
- Catalyst--Bis-Gma, TEGDMA, Barium aluminium boro silicate

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 the VITA shade guide. (A1, A3, B2, TL(Translucent white), OP(Opaque))

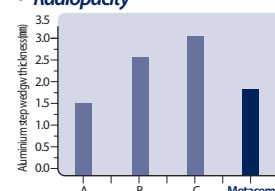
Physical and Chemical Properties

• Flexural Strength



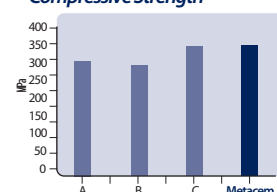
Working time 2 min
Setting time 5 min
Flexural strength 99 MPa
Radiopacity 2.33mm Al/mm

• Radiopacity



Film thickness <21 μm
Water absorption 29.3 $\mu\text{g}/\text{mm}^2$
Water solubility 2.3 $\mu\text{g}/\text{mm}^2$

• Compressive Strength



Components

1. Metacem set
 - 2 Dual syringe(A3, Translucent white shade, 9g/ea)
 - Adhesive 5g
 - 20 Mixing tips
 - Spatula
 - 10 Adhesive brush
 - Etchant 3g
 - 20 Etchant disposable tips
 - Mixing pad paper
2. Metacem Refill
 - 1 Dual syringe(A1, A3, B2, Translucent white, Opaque, 9g/ea)

Shelf life

- Two years from the production date.

Meta P&Bond

5th Generation Bonding System

This bonding agent is one step for priming and bonding



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
- Instruction for use

Shelf life

- Two years from the production date.

Meta Etchant

Meta Etchant contains 37% phosphoric acid in water thickened with unique polymer.

- New Package



Applications

- Conditioning of surface for dentine and enamel
- With composite and inlay / onlay

Composition

- Phosphoric acid, H₂O, Xanthan gum

Advantages

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

Directions

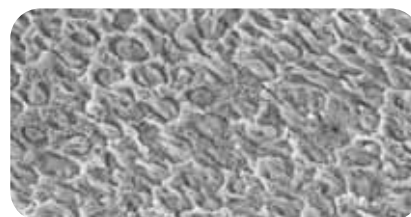
- Isolation : Rubber dam is the preferred method for isolation.
- Cavity preparation : Prepare cavity with minimal tooth reduction.
- Tooth conditioning/Dentin pretreatment : Apply 37% Meta Etchant gel to available enamel/dentin for 15 seconds.
- Rinse and Blot dry : Remove the gel by suction using aspirator tube and rinse for 20 seconds.
- Blot dry conditioned area with a moist cotton pellet.

Application Case

Enamel SEM



Before Meta Etchant application(x2000)



After Meta Etchant application(x2000)

Components

- Meta Etchant 3g x 3 syringes
- Disposable stainless tips 20 ea
- Dimension(Ø52x152mm)
- Weight : 55g

Shelf life

- Two years from the production date.

Nexcomp

Nano Hybrid Composite Resin

Anterior and posterior light cured restorative

- New Package



Applications

- Class I, II, III, IV restorations
- Core-build up to replace missing tooth structure
- Diastema closures
- Direct veneers
- Composite and porcelain repairs

Composition

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

Advantages

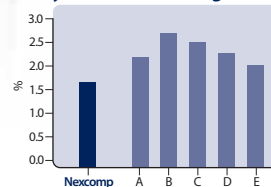
- Less shrinkage
- Color match to the Vita shade guide
- Low 1.6% shrinkage for superior marginal integrity
- Filled with 40 nano sized filler for excellent polishability
- Optimum handling - Excellent Sculptability for restoring natural shape and function.
- Non-Slumping. Non-Sticky

Components

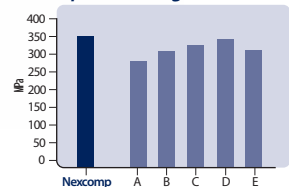
- Nexcomp Kit
 - 4g x 7 Syringe (A1, A2, A3, A3.5, B2, A2E, B2E)
 - Meta P&Bond 5g
 - Meta Etchant 3g
- Nexcomp Refill
 - 4g x 1 Syringe (A1, A2, A3, A3.5, A4, B1, B2, B3, C2, C3, D2, D3, TL, WT, OP, OA2, OA3, A2E, B2E)

Physical and Chemical Properties

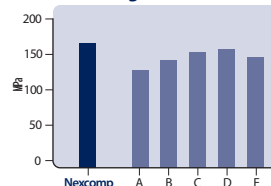
• Polymerization shrinkage rate



• Compressive strength



• Flexural strength



Clinical Cases

• Before



• After



Shelf life

- Two years from the production date.

Nexcomp Flow

Nano Hybrid Flowable Composite Resin

Light curing time 20s, ISO4049 - Resin based dental restorative material

- New Package



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

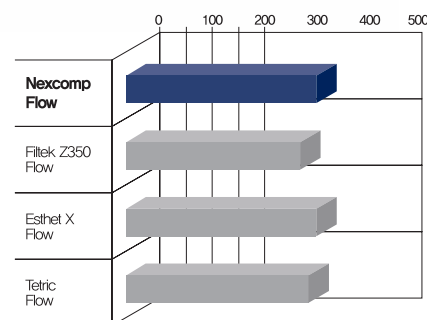
- Nexcomp Flow is low viscosity, light-cured, radiopaque flowable composite resin for minimally invasive cavity preparation.
- Filled with 40nano sized filler for excellent polishability
 - Flow on demand handling
 - Excellent Radiopacity
 - Available in 14 shades including opaque and translucent
 -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

Components

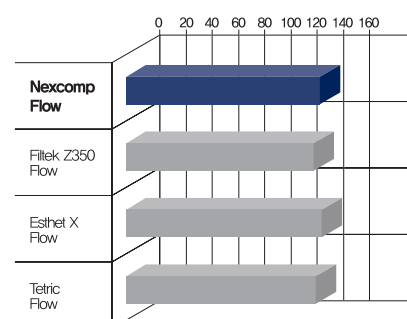
- Nexcomp Flow set 2g X 5 syringes, 20ea disposable tips
A1 A2 A3.5 B2 B3
- Nexcomp Flow syringe 2g X 2 syringes, 10ea disposable tips
A1 A2 A3 A3.5 A4
B1 B2 B3 OA2 OA3
C2 D2 WT TL

Physical and Chemical Properties

- Compressive Strength(MPa)



- Flexural Strength(MPa)



Shelf life

- Three years from the production date.

Biner LC

Light curing type cavity liner

● New Package



Biner LC contains hydroxy calcium phosphate

Biner LC is a light cure, fluoride releasing, radiopaque cavity liner and base material specially formulated for use with adhesives and composites and with conventional restorative materials.

Biner LC contains hydroxy calcium phosphate in a urethane dimethacrylate resin.

It chemically bonds to adhesive primers, composites and other resin based material, and it micromechanically bonds to dentin.

Applications

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

Composition

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

Advantages

- Excellent biocompatibility with dentin and pulp
- Light curing type cavity liner, cure extremely hard
- Chemically bonds to adhesives and composites
- Contains calcium hydroxy phosphaste
- Releases calcium, hydroxyl, phosphate and fluoride ions
- Fluoride releasing
- Insoluble in water and oral fluids
- Radiopacity
- Flow-on-demand handling and easy dispensing

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.)	5mm

Components

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

Shelf life

- Three years from the production date.

BoneMedik-

DM Bone

Synthetic Resorbable Materials

Biphasic Calcium Phosphate(BCP) Bioceramics for Implants

- New Package



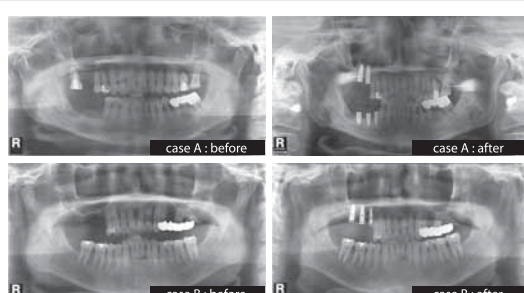
Applications

- 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

Implant Case



Intrabony defects Case

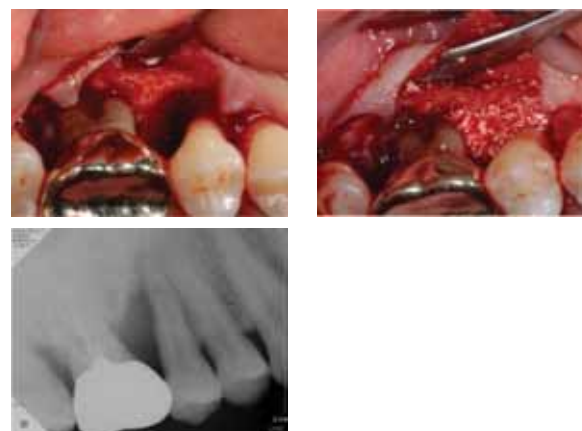


Figure 1. Clinical and radiographic view during surgery. Intrabony defect(Left), BoneMedik-DM placed into intrabony defect(middle), radiographic view of after surgery(Right).



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)

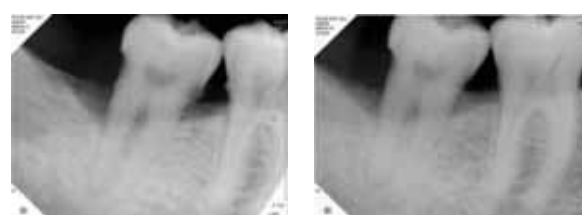
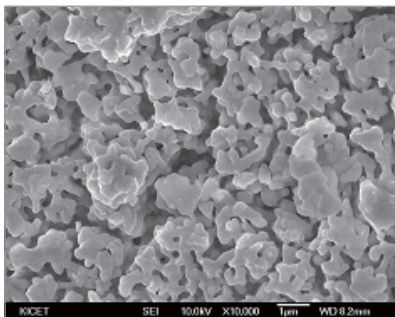
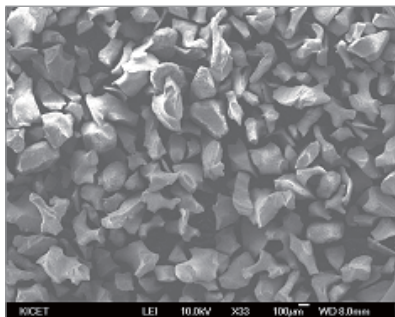


Figure 4. Radiographic view of control group. Pre-operative(Left) and six months post operative radiographic(Right)

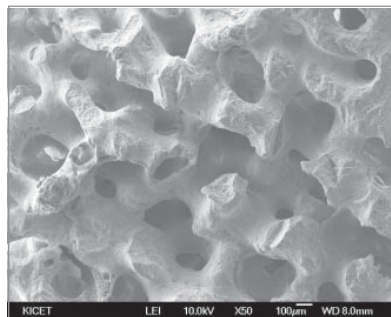
SEM Observation of DM-Bone



BoneMedik-DM surface: interconnected Nano and Micropores



Granular shape of BoneMedik-DM

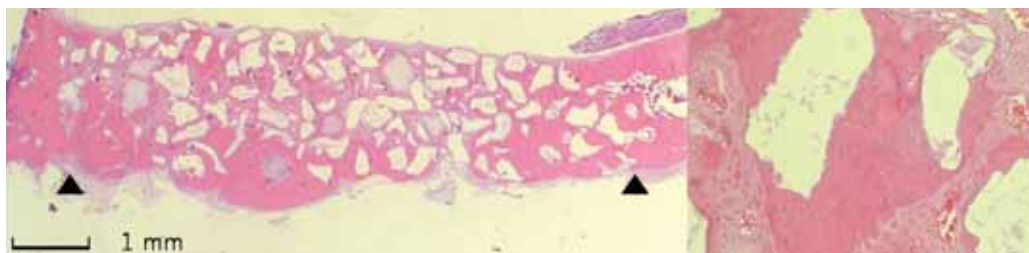


Internal Structure of BoneMedik-DM

Bone regeneration capacity of DM Bone in calvarial defect



Light micrographs of Bonemedik-DM at 4 weeks postoperatively. Active resorption process is observed; x16 (A), x200 (B)



Light micrographs of Bonemedik-DM at 8 weeks postoperatively. Mature bone tissue is apposed interspace of residual materials; x16 (A), x200 (B)

Package Specifications (1 vial / box)

SIZE	Weight						Volume					
0.1~0.3mm	0.25g	0.5g	1.0g	2.0g	5g	10g	0.25cc	0.5cc	1.0cc	2.0cc	5cc	10cc
0.3~0.5mm	0.25g	0.5g	1.0g	2.0g	5g	10g	0.25cc	0.5cc	1.0cc	2.0cc	5cc	10cc
0.5~1.0mm	0.25g	0.5g	1.0g	2.0g	5g	10g	0.25cc	0.5cc	1.0cc	2.0cc	5cc	10cc
1.0~2.0mm	0.25g	0.5g	1.0g	2.0g	5g	10g	0.25cc	0.5cc	1.0cc	2.0cc	5cc	10cc
2.0~4.0mm	0.25g	0.5g	1.0g	2.0g	5g	10g	0.25cc	0.5cc	1.0cc	2.0cc	5cc	10cc

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Dental Equipments



Meta Biomed Product Program 2009/2010

E&Q Master Cordless Gutta Percha Obturator	3.01
E&Q Plus Gutta Percha Obturator	3.02
SmarPex Full Automatic Electronic Apex Locator	3.03

E&QMASTER™
Cordless Gutta Percha Obturator



The E&Q Master has the same battery charging system as the mobile phone. It operates at low voltage for users safety. If the battery is discharged during use, you can replace it with an extra battery on standby for continuous use. The slim design and simple operation of the E&Q Master will maximize effectiveness and convenience.

Advantages

- The silm design provides a nice feeling of grip along with easy handling.
- The low-voltage battery enables safe operation.
- The simple operation enables you to learn easily and quickly.
- The thermo-plasticized method of filling makes speedy treatment.
- Easy and quick obturation with accurate and predictable filling.
- Excellent apical control & obturation of anatomically complicated canals.

Specifications

Charger	Input Output	100V ~ 240V DC 9V, 1.8A
Gun	Heater Heating Time	DC 3.8V, 8W 2 Minutes
Pen	Heating Time	1 Second
Operating Time	Gun	Continuous for 1.5 hours
	Pen	Continuous for 1.5 hours
Battery (Li-Ion type)	Li-ion	ICR18650-26(Samsung SDI) 3.8V 2,400mA
	Charging Time	Within 3 hours

Components



Master Gun



Master Pen



Charger



Battery



Gun Needle
(23,25 Gauge / 6 pcs)



Pen Tip (F,FM)



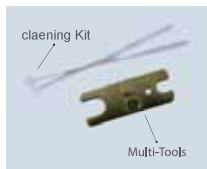
Gutta Percha
(04,06 Taper, A/C Cone)



Gutta Percha Point (Bar)



Heat Insulator



Accessory Tools




Adapter




Charging Cord


Downpack with Master Pen




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



2. Marked length after select a E&Q Pen Tip and plugger 4-6mm shortly inserted than working length.




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




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


Backfill with Master Gun




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



6. Pull the trigger slowly and fill the gutta percha up to root canal. Gun needle would be pushed by filled gutta percha naturally.



7. Harden the heated gutta percha with bigger plugger.



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.

E&Q+PLUS™
Gutta Percha Obturator



E&Q Plus gives the clinician the option to choose from either vertical compaction of warm gutta percha, heat softened gutta percha injection or a combination of both techniques in filling the canals.

Advantages

- Easy & Quick obturation with accurate and predictable filling
- Possible best hermetic sealing with 3-dimensional filling(Total obturation of the entire canal including lateral canals)
- Convenient and efficient 2-in-1 filling system
- Easy to learn and master
- Easy touch button allows easy temperature setting

Specifications

1) Control Unit	1. Operating Voltage 2. Adapter 3. Charging Time 4. Gun Temperature Range 5. Pen Temperature Range	Battery DC 3.6V AC 100 ~ 240V DC 9V, 1.8A 3 Hours 50~200 100~ 350
2) Gun	1. Heater 2. Temperature Sensor 3. Heating Time	DC 3.6V, 8W J Type 2 Minutes
3) Pen	1. Temperature Sensor 2. Heating Time	K Type 1 Second
4) Operating Time Per Charging Capacity	1. Gun 2. Pen	Continuous for 3 hours
5) Battery (Ni-MH)	1. Capacity 2. Size 3. Operating Temperature Range	DC 3.6V, 8.8A/H Ø18.4×8×69.5 (63g)6EA 0 ~ 45

Components



E&Q Plus Control Unit



E&Q Gun



E&Q Pen



Pen Tips



Gutta Percha Point
(Bar)



E&Q Gutta Percha
Points



Gun Needles



Adapter



Heat Insulator



Cleaning Kits



Electric Cord



Multi Tools

SmarPex™

Full Automatic Electronic Apex Locator



- SmarPex provides highly reliable accuracy in any canal condition. It is simple, quick and significantly lessens x-ray exposure risk.

Reference

1. "Root canal measurement in teeth with electrolyte compensation"
(Medical & Biological Engineering & Computing : vol.40, 2a002)
2. "Clinical Accuracy of a New Apex Locator with an Automatic Compensation Circuit"
(Journal of Endodontics : vol.28, 2002)
3. "Electronic apex locator"
(Dental Clinics of North America : vol.48, 2004)

Advantages

- Automatic calibration function
- Fast and reliable with less x-ray exposure
- Provides accurate reading in any canal conditions (dry, wet with blood, EDTA, sodium hypochlorite, hydrogen peroxide, saline or water)
Long lasting rechargeable battery with auto-power off function
- Autoclavable lip clips and file holder
- Easy and Quick reading with wide screen and audio signal
- Lightweight and compact design

Specifications

Power Supply	① 9V DC, 2A-AC/DC Adapter	• Input : AC100~220V • Output : DC 9V, 1.8A
	② Recharge Li-Ion Battery Packs (Rectangular 3.7V 3x790mAh)	
Charging Time	4 Hours	
Operating Time	3 Hours	
Power Consumption	Approx. 1.2W	
Measuring Voltage	100mV	
Measuring Current	3.5-10μA, Normal 3.7μA	
Display and Indicator	3 color LED display, Speaker sound	
Display Dimension	65 × 91 (mm)	
Outer Dimension	115 × 122 × 91.5 (mm)	
Weight	274g	

Components

- 1 SmarPex Apex Locator
- 1 Probe
- 3 File Holder
- 5 Lip Clip
- 1 Adaptor

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