

Meta Biomed, Dental Business Group, [www.meta-biomed.com](http://www.meta-biomed.com)

# Dental Product's General Catalogue

Dental Materials | Dental Equipments

## META BIOMED CO.LTD.

1115-6, Namchon-ri, Oksan-myeon, Cheongwon-gun  
Chungbuk 363-911, Korea  
Tel: 82-43-216-0433~4 Fax: 82-43-217-1988  
Website: <http://www.meta-biomed.com>  
E-mail: [info@meta-biomed.com](mailto:info@meta-biomed.com)

D0-31-1 © Copyright 2009 Meta Biomed Co., Ltd. All Rights Reserved.

**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.**



## Table of Contents

/ Dental Materials

/ Dental Equipments

04

25

# 1

## Dental Materials



Meta Biomed Product Program 2009/2010

<b>Gutta Percha Points</b>	2.01
<b>Absorbent Paper Points</b>	2.02
<b>Calcium Hydroxide Pastes</b>	2.03
· <b>Metapex</b>   Calcium Hydroxide with Iodoform	2.04
· <b>Metapaste</b>   Calcium Hydroxide with Barium Sulfate	2.05
<b>ADSEAL</b>   Resin Based Root Canal Sealer	2.06
<b>ZOBSeal</b>   Zinc Oxide Based Root Canal Sealer	2.07
<b>MD-Cleanser</b>   EDTA Solution	2.08
<b>MD-ChelCream</b>   EDTA Cream	2.09
<b>MD-Temp</b>   Hydraulic Temporary Restorative	2.10
<b>NETC</b>   Non-Eugenol Temporary Cement	2.11
<b>Metacem</b>   Adhesive Resin Cement	2.12
<b>Meta P&amp;Bond</b>   5th Generation Bonding System	2.13
<b>Meta Etchant</b>   37% Phosphoric Acid	2.14
<b>Nexcomp</b>   Nano Hybrid Composite Resin	2.15
<b>Nexcomp Flow</b>   Flowable Composite Resin	2.16
<b>Biner LC</b>   Light curing type cavity liner	2.17
<b>Bone Graft Substitute for Implants</b>	2.18

# 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)

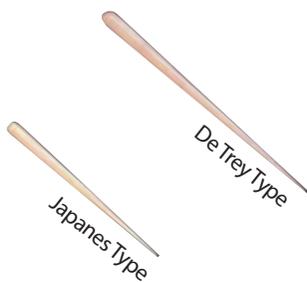
X-Fine, Fine-Fine,  
Medium-Fine, Fine,  
Fine-Medium, Medium,  
Medium-Large, Large,  
X-Large

- 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** : P:11
- **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 : 228×61×22(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

● New Package

Calcium Hydroxide with Barium Sulfate  
Water Soluble Temporary Root Canal Filling Material



## 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

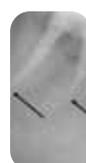


Three months later  
- after removal of the paste, it shows a formation of the apical barrier



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

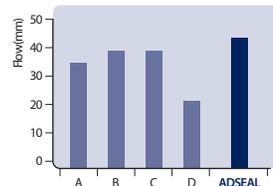
- Excellent biocompatibility
- Easy to mix paste-paste
- Hermetic sealing ability
- Nonstaining to the teeth
- Insoluble in tissue fluids
- Good radiopacity

## Components

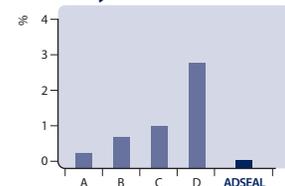
- 13.5g dual syringe  
Base 9g (Epoxy resin, Calcium phosphate)  
Catalyst 4.5g (Amines, Bismuth subcarbonate)
- Spatula
- Mixing Plate
- Dimension : 55x180x40(mm)
- Weight : 135g

## Physical and Chemical Properties

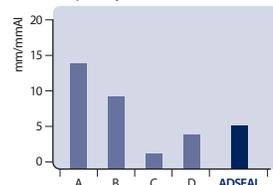
### • Flow



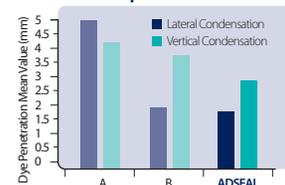
### • Solubility



### • 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  $\mu\text{m}$

## 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

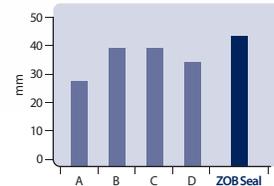
- Powder 15g (Zinc Oxide)
- Liquid 7ml (Eugenol)
- Spoon
- Mixing Pad
- Dimension : 63x 81x 70 (mm)
- Weight : 133g

## Shelf life

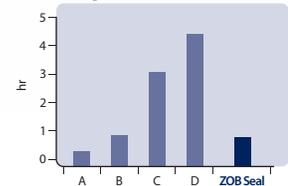
- Two years from the production date.

## Physical and Chemical Properties

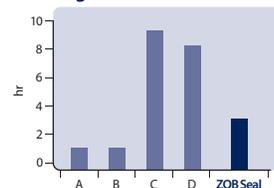
### Flow



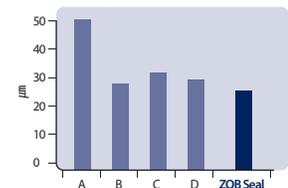
### Working time



### 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-Ca<sup>2+</sup>)
- Easier instrumentation by softening dentin canal wall  
Produces the cleanest dentinal walls after smear layer removal

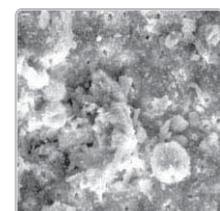
## Components

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

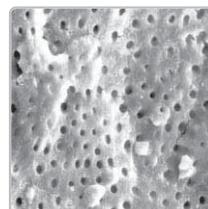
## Clinical Case



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-Ca<sup>2+</sup>)
- 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

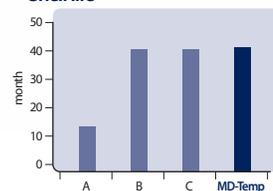
- Polyvinyl Acetate, Zinc Oxide, Zinc Sulfate, Ethanol

## Advantages

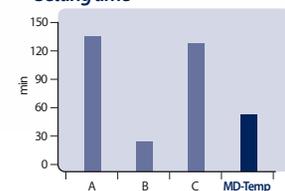
- Easy application and removal
- Hermetic seals the cavity
- Excellent stability when set
- Proper crush strength

## 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

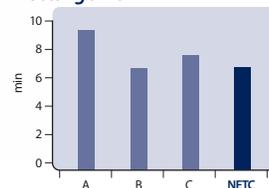
- Easy to mix by paste-paste type
- 1.5 minutes working time after start of mixing.
- 6 minutes setting time after start of mixing.
- Especially suitable for patients who are sensitive to eugenol.

## Components

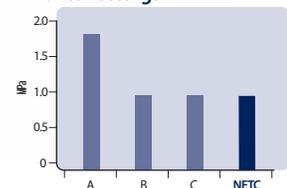
- Base 60g(Zinc Oxide, Mineral Oil),
- Catalyst 20g(Rosin)
- Base 40g, Catalyst 14g
- Mixing Pad
- Weight : 160g, 120g
- Dimension : 64 × 141 × 28(mm)  
64 × 106 × 28(mm)

## Physical and Chemical Properties

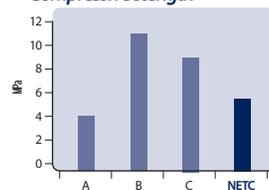
### • Setting time



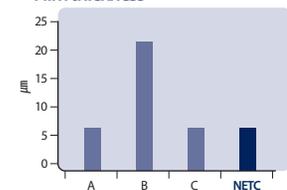
### • Adhesive strength



### • 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

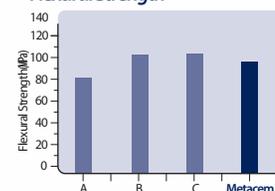
- Base-Bis-Gma, TEGDMA, Barium aluminium boro silicate
- Catalyst--Bis-Gma, TEGDMA, Barium aluminium boro silicate

### Advantages

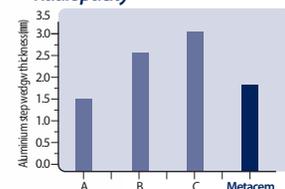
- Easy to use for cosmetic indirect restorations.
- Provides high resistance to compressive force.
- Provides a dual-cure for highly shaded, thick or opaque cementation.
- 5 shades correspond with the VITA shade guide. (A1, A3, B2, TL(Translucent white), OP(Opaque))

### Physical and Chemical Properties

#### • Flexural Strength



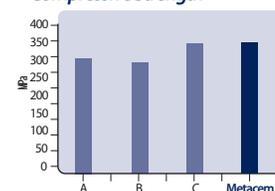
#### • Radiopacity



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

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

#### • Compressive Strength



### Components

1. Metacem set
  - 2 Dual syringe(A3, Translucent white shade, 9g/ea)
  - Adhesive 5g
  - 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)

### Shelf life

- Two years from the production date.

# Meta P&Bond

## 5<sup>th</sup> Generation Bonding System

This bonding agent is one step for priming and bonding



● New Package

### 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, PMGDMA, 2-Hydroxyethylmethacrylate, Ethyl alcohol

### Advantages

- Superior bonding strength
- 5<sup>th</sup> 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, H<sub>2</sub>O, Xanthan gum

## Advantages

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

## Directions

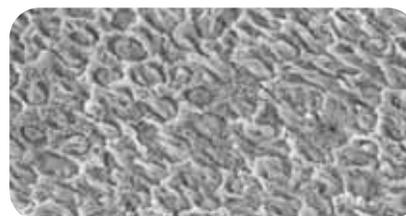
- Isolation : Rubber dam is the preferred method for isolation.
- Cavity preparation : Prepare cavity with minimal tooth reduction.
- Tooth conditioning/Dentin pretreatment : Apply 37% Meta Etchant gel to available enamel/dentin for 15 seconds.
- Rinse and Blot dry : Remove the gel by suction using aspirator 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 × 3 syringes
- Disposable stainless tips 20 ea
- Dimension(Ø52×152mm)
- 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

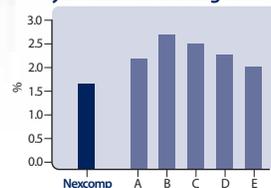
- Less shrinkage
- Color match to the Vita shade guide
- Low 1.6% shrinkage for superior marginal integrity
- Filled with 40 nano sized filler for excellent polishability
- Optimum handling - Excellent Sculptability for restoring natural shape and function.
- Non-Slumping. Non-Sticky

## Components

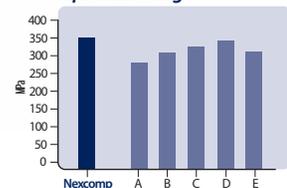
- Nexcomp Kit
  - 4g x 7 Syringe (A1, A2, A3, A3.5, B2, A2E, B2E)
  - Meta P&Bond 5g
  - Meta Etchant 3g
- Nexcomp Refill
  - 4g x 1 Syringe (A1, A2, A3, A3.5, A4, B1, B2, B3, C2, C3, D2, D3, TL, WT, OP, OA2, OA3, A2E, B2E)

## Physical and Chemical Properties

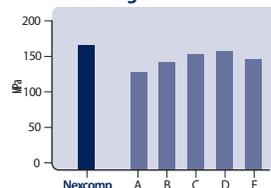
### • Polymerization shrinkage rate



### • Compressive strength



### • Flexural strength



## Clinical Cases

### • Before



▲ Mesial fracture      ▲ Cervical abrasion      ▲ Class I cavity

### • After



▲ complete Nexcomp restoration      After restoration      ▲ Restoration with Nexcomp

## 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-Era TMPTMA  
Barium aluminium boro silicate

## Advantages

Nexcomp Flow is low viscosity, light-cured, radiopaque flowable composite resin for minimally invasive cavity preparation.

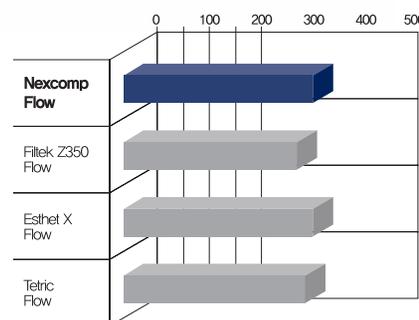
- Filled with 40nano sized filler for excellent polishability
- Flow on demand handling
- Excellent Radiopacity
- Available in 14 shades including opaque and translucent
- No slumping and running

## Components

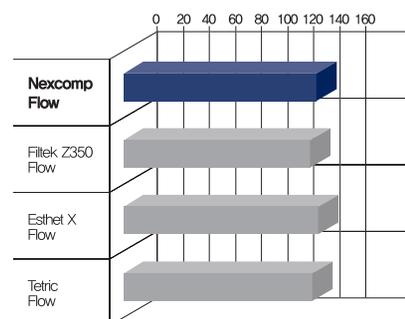
- Nexcomp Flow set 2g X 5 syringes, 20ea disposable tips  
A1 A2 A3.5 B2 B3
- Nexcomp Flow syringe 2g X 2 syringes, 10ea disposable tips  
A1 A2 A3 A3.5 A4  
B1 B2 B3 OA2 OA3  
C2 D2 WT TL

## 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



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



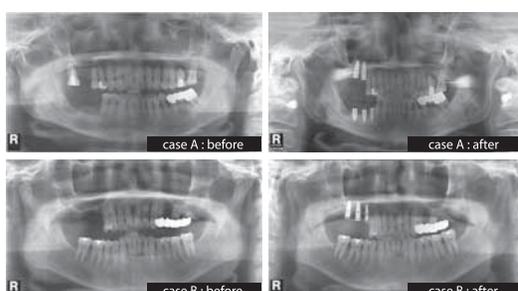
**Applications**

- 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  $\beta$ -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**

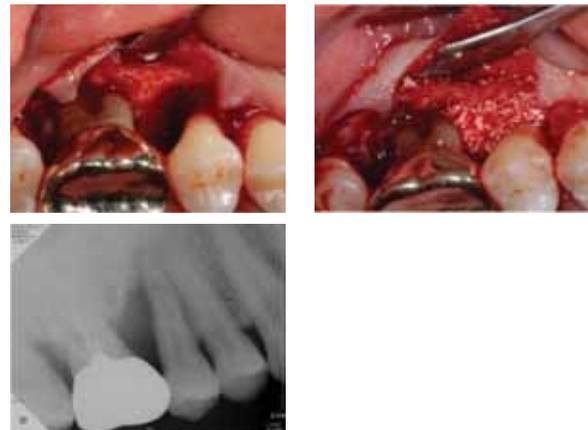


Figure 1. Clinical and radiographic view during surgery. Intrabony defect(Left), BoneMedik-DM placed into intrabony defect(middle), radiographic view of after surgery(Right).



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)

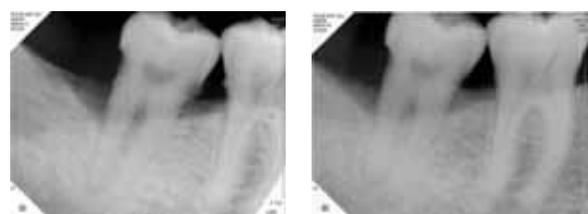
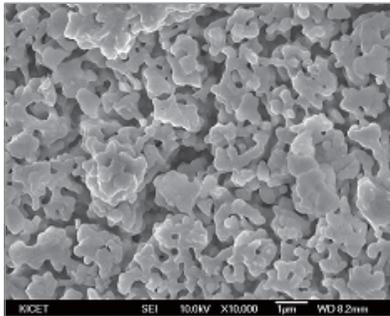
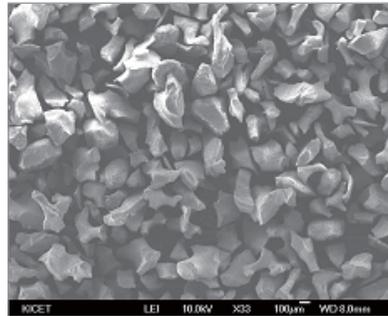


Figure 4. Radiographic view of control group. Pre-operative(Left) and six months post operative radiographic(Right)

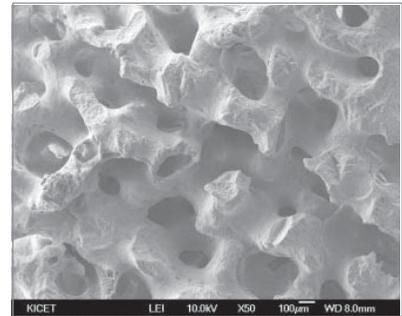
### SEM Observation of DM-Bone



BoneMedik-DM surface: interconnected Nano and Micropores



Granular shape of BoneMedik-DM

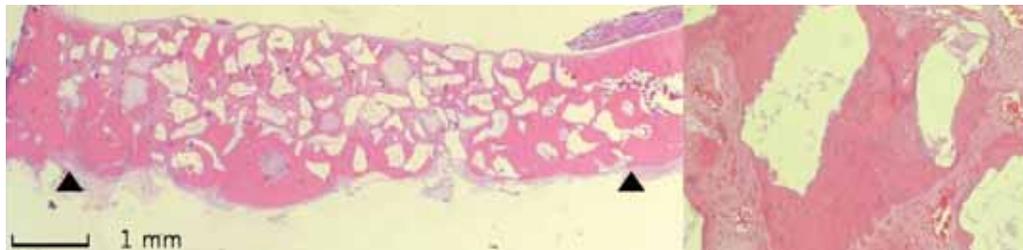


Internal Structure of BoneMedik-DM

### 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					
	0.25g	0.5g	1.0g	2.0g	5g	10g	0.25cc	0.5cc	1.0cc	2.0cc	5cc	10cc
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

# 2

## Dental Equipments



Meta Biomed Product Program 2009/2010

<b>E&amp;Q Master</b>   Cordless Gutta Percha Obturator	3.01
<b>E&amp;Q Plus</b>   Gutta Percha Obturator	3.02
<b>SmarPex</b>   Full Automatic Electronic Apex Locator	3.03

**E&Q MASTER™**  
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 slim 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.

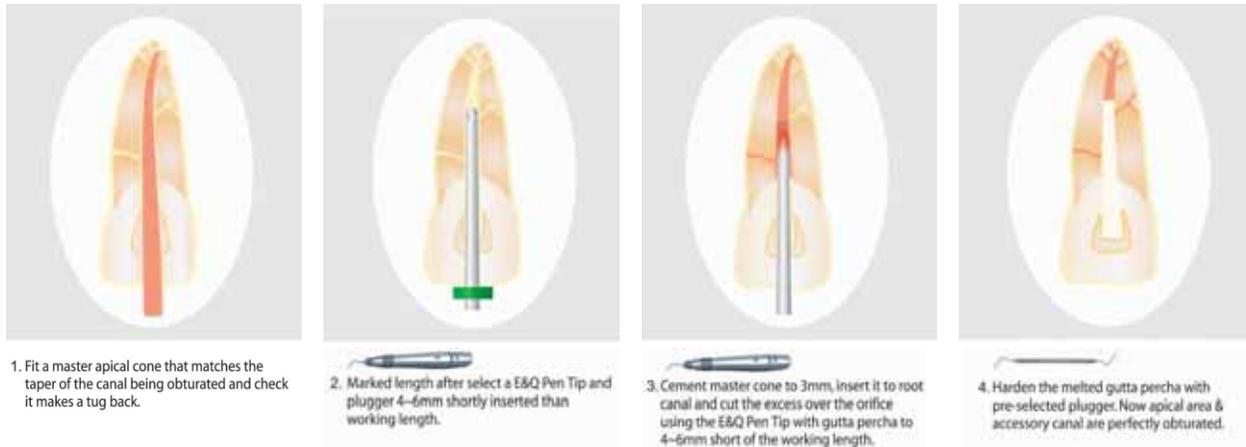
**Specifications**

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**



## Downpack with Master Pen



## Backfill with Master Gun



## 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.



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

MEMO

〇〇〇〇  
<http://www.meta-biomed.com>

MEMO

〇〇〇〇  
<http://www.meta-biomed.com>

MEMO /

30

