

The unique

Pulp
therapeutic
&
Restorative
material



Biodentine[®] XP



Your dentin
restoration
system

800.872.8305
biodentinexp.com
From the manufacturer of Septocaine[®]



Pulp therapeutic & Restorative material

**Superior
Bioactivity^{1-4*}**

**Excellent
Biocompatibility^{5-7**}**

**Antimicrobial
Properties¹⁰**

**Strong Mechanical
Properties^{5,7}**

**Tight Marginal
Seal⁹**

* Highest mean value of Calcium release and its superior concentration that encourages positive interaction with pulp cells.

** Biodentine® showed the highest % of cell biocompatibility.

Properties verified by preclinical studies.

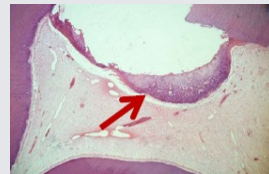
CE for Biodentine® XP was obtained on the basis of equivalence with Biodentine®.

Pulp therapeutic & Restorative material

Superior Bioactivity¹⁻⁴

Favorable interaction with pulp cells

Dense dentinal bridge formation to protect pulp.



Remineralization of damaged dentin.

Excellent Biocompatibility⁵⁻⁷

Extra-pure
C3S

0
resin

0
cell death

Antimicrobial Properties^{10,21}

pH **11+**

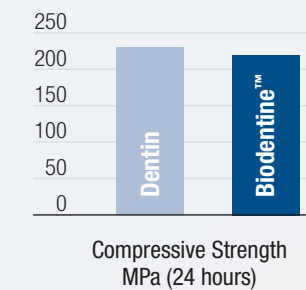
pH 10.99 at release and
pH >11 maintained for 28 days.

Unfavorable environment for bacteria responsible for pain and secondary caries.

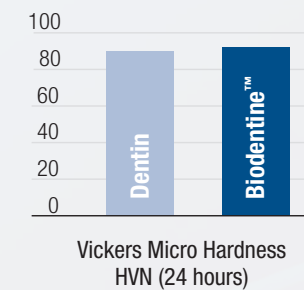
Strong Mechanical Properties^{7,8}

Similar to sound dentin

Resistance to external impact of mastication forces



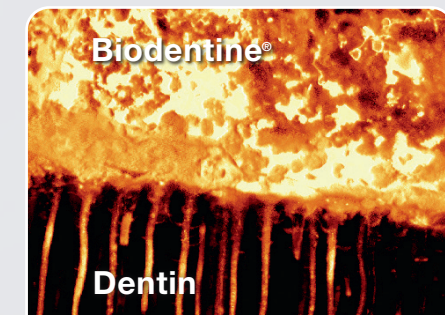
Stress absorption



Tight Marginal Seal^{4,9,11}

0
shrinkage

Thanks to its resin-free formulation, long-lasting dimensional stability is ensured.

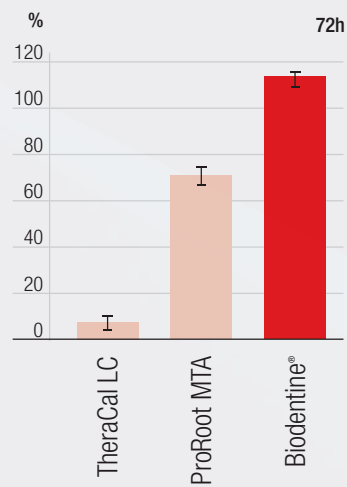


Dentin

Deep penetration within dentin tubules.

Pulp therapeutic & Restorative material

Better cell viability⁵

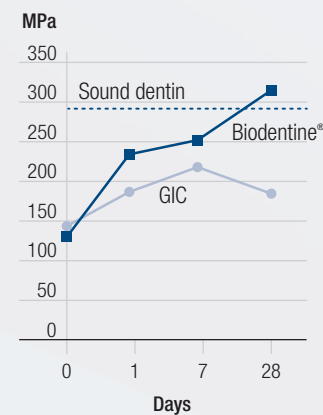


“Results reflect a percentage of cell viability compared to cells cultured without pulp capping materials, which were considered 100%.”

Biodentine® exhibited > 100%, the highest percentage of cell biocompatibility among the tested pulp capping materials.”

Poggio C et al. 2015

Better compressive strength⁸

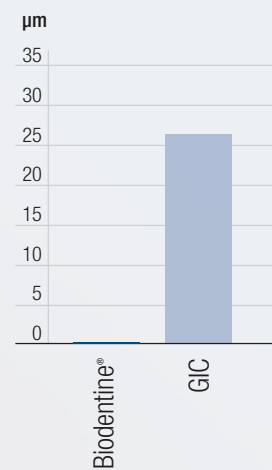


“A specific feature of Biodentine® is its capacity to continue improving with time over several days until reaching 300 MPa after one month.”

This value becomes quite stable and is in the range of the compressive strength of natural dentine (297 MPa).”

Internal data: Biodentine scientific file
O'Brian 2008

Less microleakage^{11, 12}



“Biodentine® exhibits superior marginal sealing ability as well as marginal adaptation under composite resin as compared to GIC.”

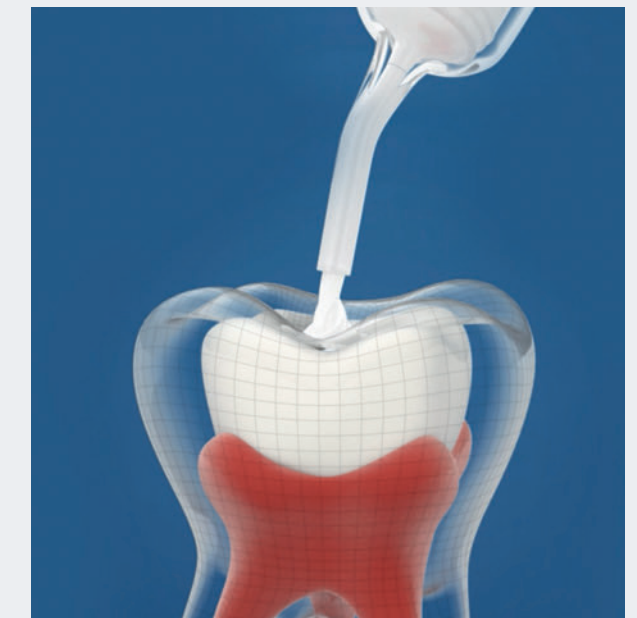
“Resistance to microleakage is important for preventing challenges such as the development of secondary caries, tooth sensitivity, aesthetic concerns, and the potential for restoration failure.”

Niranjan et al. 2016
Aljehani et al. 2023

Biodentine® XP is THE unique material suited for

Bio-Bulk Fill procedure^{17, 20}

Fill **the entire cavity** with only Biodentine® XP from the pulp to the tooth surface.



Final enamel restoration to be performed:

- in the same session
or
- in the second session, which can be performed **between 2 weeks and 6 months later**¹⁸.

The full Bio-Bulk Fill procedure protocol²⁰



**Pulp
therapeutic** & **Restorative
material**

Success in your **daily**
deep cavity restoration procedures

Clinical success rate

**Direct
pulp capping**

96.4%¹⁵

Pulpotomy

93.9%¹⁶

**Indirect
pulp capping**

95.8%¹³

When dentin thickness is:

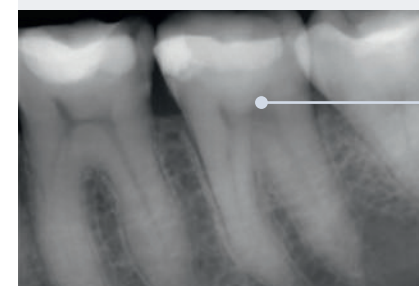
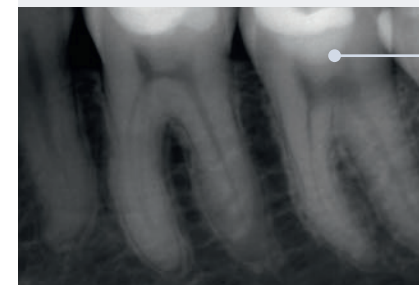
- **Less than 0.5 mm**
- **Difficult to determine** in a clinical setting¹⁴

Using just one product,
Biodentine® XP lets you:

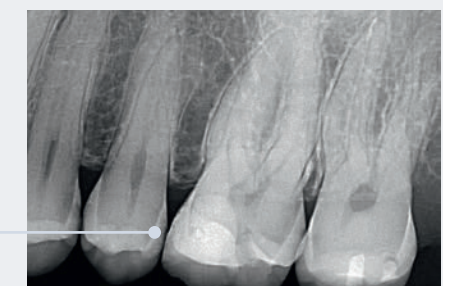
- Heal the pulp
- Preserve pulp vitality
- Save tooth structure²¹

12 years of success of Biodentine®
in the Bio-Bulk Fill procedure

Patient 1
1- and 12-year recall



Patient 2
8-year recall



Healthy teeth with
pulp vitality and
tooth structure
preserved.

Cases by Prof. J. Sabbagh
DDS, MSc, PhD, FICD, HDR

6.5 million teeth saved with Biodentine®¹⁹

Biodentine® XP in the Bio-Bulk Fill procedure



Time-saving

One-step
cavity filling



Easy to use

Direct placement
in the tooth



Daily convenience

Fewer steps in
the procedure



Adapted to your practice

1- or 2-session
procedure



Cost- effective

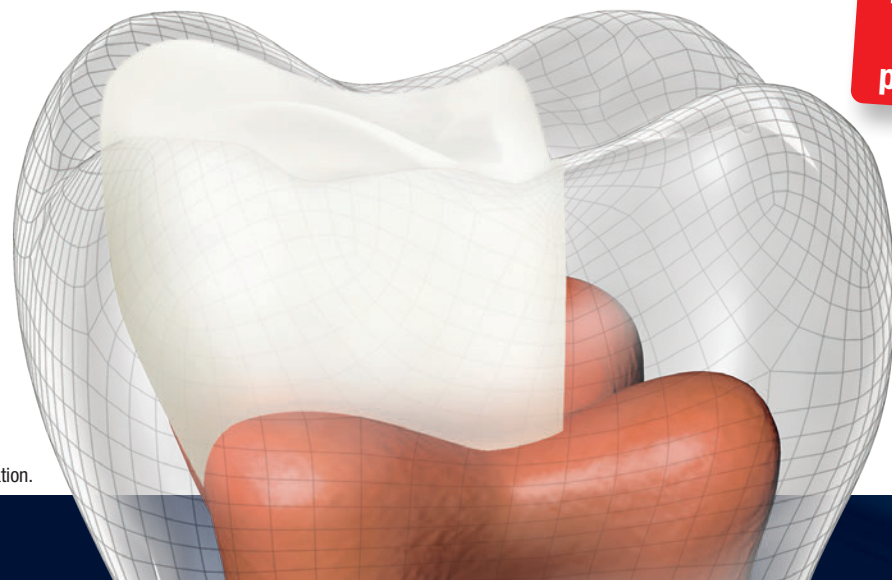
1 product
for entire cavity*



Proven clinical success

multiple
clinical trials

1300+
publications**



** Publications available at
<https://pubmed.ncbi.nlm.nih.gov/>.
CE for Biodentine® XP was obtained
on the basis of equivalence with
Biodentine®.

Examples of Bio-Bulk Fill procedure in daily deep cavity restorations

Indirect pulp capping in one session

By Prof. J. Sabbagh



Cavity preparation.



Biodentine® XP placement, Bio-Bulk
Fill procedure.



Final restoration using self-etch adhesive system and composite
in the same session.

Indirect pulp capping in two sessions (final enamel restoration in two weeks)

By Dr. M. Ganowicz



Tooth after preparation.



Restoration of the proximal walls
with composite material.



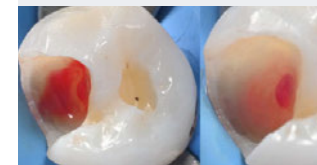
Filling of the rest of the cavity with
Biodentine®.



Final enamel restoration after
two weeks.

Direct pulp capping in one session

By Dr. V. Tosco



Clean cavity with pulp exposure.



Injection of Biodentine® XP.



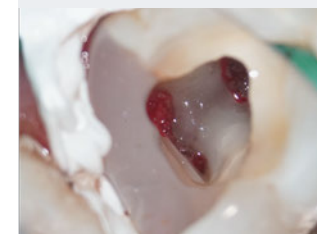
Hardening of bioceramic material
before restoration.



Final restoration using selective
enamel etching and composite.

Pulpotomy in two sessions (final enamel restoration in two weeks)

By Dr. S. Herbst



Complete pulpotomy with achieved
hemostasis.



Bio-Bulk Fill procedure with
Biodentine®.



Final restoration using self-etch
adhesive system and composite in a
second session.



Radiology check.

* under final enamel restoration.

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Biodentine XP 200

- Box of 10 cartridges (refills)
Item #01C0710



Biodentine XP 500

- Box of 10 cartridges (refills)
Item #01C0720



Biodentine XP Applicator Gun

- Box 1 applicator gun
Item #01C0730



Biodentine XP Mixer

- Box 1 mixer
Item #01C0725



Biodentine XP Starter Pack

- 1 Box of 10 Biodentine XP 200 Cartridges
- 1 Box of 10 Biodentine XP 500 Cartridges
- 1 Biodentine XP Applicator Gun
- 1 Biodentine XP Mixer
Item #01C0700

Septodont

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