

The Moment It Touches Dentin, Bioactivity Begins

Calcium Silicate + MBG Technology

✓ **Rapid Ca^{2+} & OH^- Ion Release**

MBG's exceptionally high surface area delivers fast, sustained release of calcium and hydroxide ions immediately upon placement.

✓ **Alkaline Micro-environment**

Establishes an alkaline environment around the pulp for helps inhibit bacterial activity and reduced pulpal irritation.

✓ **Dentin Bridge & Hydroxyapatite Formation**

Promotes the formation of a biocompatible hydroxyapatite (HAp) layer, supporting dentin remineralization.



**Reliable
Pulp Protection**

One-Fil[®] LC

Light-Cured Calcium Silicate Pulp Liner



One-Fil[®] LC

✓ A Light-Cured, Calcium Silicate–Based Pulp Liner

One-Fil[®] LC is a next-generation, light-cured, resin-reinforced calcium silicate base/liner that combines calcium silicate with nano-porous MBG (Mesoporous Bioactive Glass).

It overcomes the long-standing drawback of conventional light-cured liners — ion entrapment within the resin matrix — releasing calcium ions immediately on placement, at a dramatically higher rate and volume, to drive complete formation of a hydroxyapatite (HAp) layer.

Indicated for direct pulp capping (exposure ≤ 0.5 mm) and indirect pulp capping, and as a protective barrier beneath any restoration — composite resin, amalgam, cement, and more — to safeguard the pulp-dentin complex.

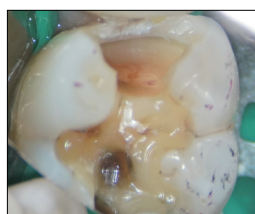
✓ Indications

- Direct Pulp Capping: Capping of pulp exposures caused by accidental or traumatic injury
- Indirect Pulp Capping: protecting the pulp beneath residual dentin in deep carious cavities
- Base/Liner: lining beneath composite resin, amalgam, glass ionomer, and inlay/onlay restorations

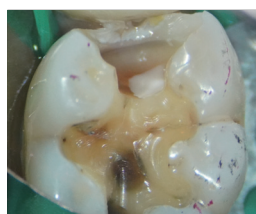
✓ Performance Comparison

		One-Fil LC (Our Product)	Company A (Competitor)
Flexural Strength	MPa	34.49	<15
Radiopacity	%	300.00	200.00
Depth of Cure	mm	1.60	0.80
Flow	mm	22.20	23.50
pH	pH	10.79	10.82
Cumulative Calcium Ion Release	ppm	182.00	199.00
Compressive Strength	MPa	150.50	58.25
Volumetric Change	%	2.60	7.20

✓ Clinical Case



Before



After

* Courtesy of
Dr. Sung-Geun Cho



CONTENTS

#311 One-Fil[®] LC 1g x 1syringe, Disposable tips

*Reference

1. Efficacy of different calcium silicate materials as pulp-capping agents: Randomized clinical trial (2020)
2. Comparison of the Effects of TheraCal LC and Mineral Trioxide Aggregate on Direct Pulp Capping (DPC) Based on Histological Findings (2020)
3. Clinical influencing factors of vital pulp therapy on pulpitis permanent teeth with 2 calcium silicate-based materials : A randomized clinical trial (2024)

Seoul Office +82-10-8535-2877

No. 206, 464, Cheongpa-ro, Jung-gu, Seoul 04510, Korea
Fax : +82-2-6499-1006 E-mail : sales@mdclus.com

Head Office Research & Development Center

No. 1210, 134, Gongdan-ro, Heungdeok-gu, Cheongju-si,
Chungcheongbuk-do 28576, Korea

MDCLUS
MEDICLUS CO., LTD.