SPIDENT
Clinical Report
EsCom® 250
& EsFlow®

You're the Artist

Hands of an artist create something unimaginable.
When they work for people's sake, it could be more valuable.
You are the artist, not only dentist when you take care of people.
SPIDENT will be your partner at the moment with passion.

Introduction

SPIDENT CO., LTD. was founded in 1997 and we established R&D center in November 2004. Our manufacturing lines are certified by CE (MDD), FDA and ISO. SPIDENT CO., LTD. independently operates all the processes of R&D, quality control, product design & marketing, and finest customer services, aiming at your 100% satisfaction. Our strength lies in ideal quality with ideal price. This allows us to export over 100 countries at the moment.

History of SPIDENT

1997 **Establishment**
· Spident Co., Ltd. establishment

2006 · Established R&D Center

2010 **The growth process**
· Certified CE, ISO 13485, FDA
· Launched chemical products to overseas market
· Awarded in recognition of $1M in exports

2014 **Development**
· Awarded in recognition of $5m in exports
· Launched NOP Needle

2015 **Vacu-Mixer**
· Launched Vacu-Mixer (World First Cordless Auto Impression Mixer)

2016 **Glass Ionomor**
· Research & Development of GIC (First manufacturer in Korea)

2017 **20th Foundation Anniversary**
· Selected as Global Strong Company

2018 **Overseas Factory**
· Established a factory in China

2019 **Further Growth**
· Awarded in recognition of $10M in exports

SPIDENT Apple Story

Publication Date : December 16, 2022
Publishing Department : Merchandising Department
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Design & Edit : Ji Hyeon Ahn

SPIDENT Apple Story
Clinical Report
EsCom® 250 & EsFlow®

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Clinical case using EsCom250®

Jung. J. K. Dental Clinic

Daseul jung

Introduction

Composite resins of various companies sold in the domestic dental market have already made a leap in the past 10 years to the extent that they can reproduce brightness, saturation and transparency of natural teeth. Expanding their clinical applicability, composite resins are used beyond simple dental restoration.

Using various colors of composite resins, the expression of special shades seen in ceramic crown can be expressed as natural teeth. Therefore, the range of clinical application has been widened.

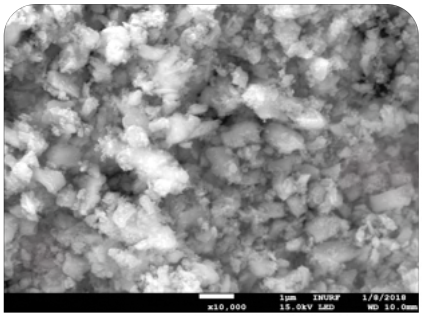
A lot of clinicians choose universal bond, which is sold by various companies, as it is easy to handle and is stable. With improved adhesion and stability, “bonding system” is increasingly used, which in turn increases the use of composite resins in aesthetic treatments. Composite resins, hence, are constantly expanding their clinical applicability, and are expected to take a more important role in the future. Of course, this is not limited to any particular company's product.

SPIDENT’s EsCom250, which is available in various shades and is easy to handle, is one of the composite resins that allows more aesthetic tooth reproduction. The author thinks the product is on a par with global leading products when it comes to mechanical properties and quality, thanks to SPIDENT’s efforts in keep on developing its composite resins.

Due to its appropriate viscosity, EsCom250 is very easy to handle, and with a compressive strength of over 350Mpa, it has low abrasivity.

Furthermore, composed of nanofiller with small particles, EsCom250 allows a perfect imitation of natural enamel when applied and polished. Without much change in tone before and after light curing, and with one shade covering a wide range of tones, it makes possible to make more aesthetic application.

▶ Excellent Esthetics



· Color adaptability for natural teeth
· Minimum color change between before and after curing
· Smooth surface

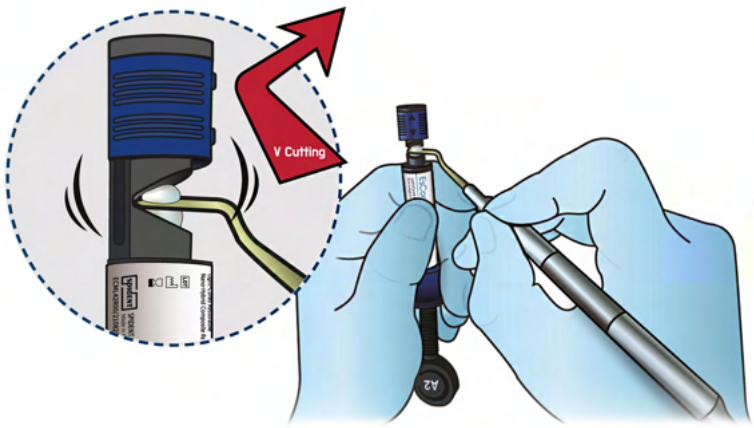
▶ Good handling property (not sticky)

- Excellent Physical Properties

· Sufficient compressive strength and Low shrinkage of light curing
· Excellent wear property
  +Durable for abrasion
  +Non-damaging for opposite teeth

▶ Practical design for easy-slide system

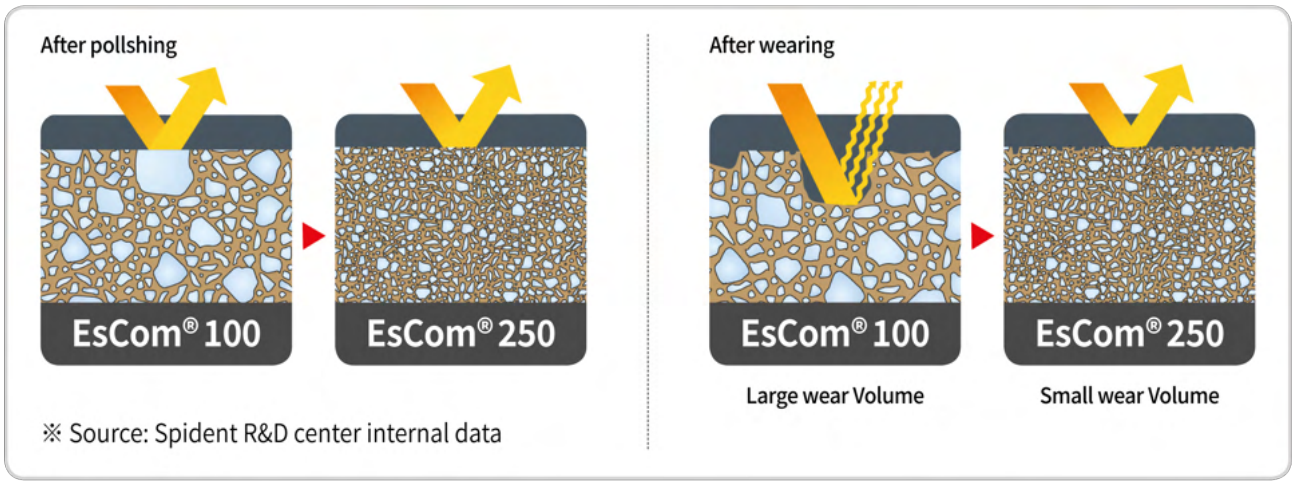
- No more wasting



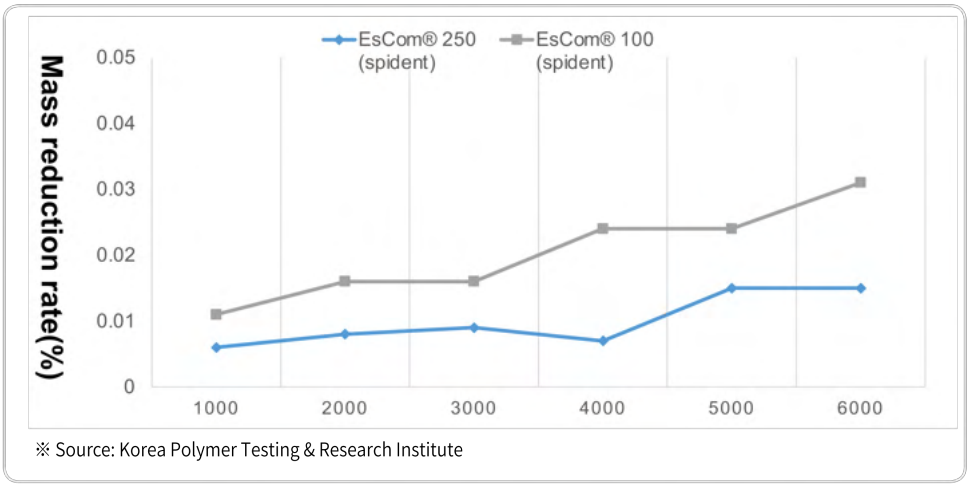
- EZ SLIDE Cap

▶ Wear Resistance

· Because nano fillers disperse uniformly, asperity rate is very low. Therefore the asperity does not interrupt the opposing tooth moving.

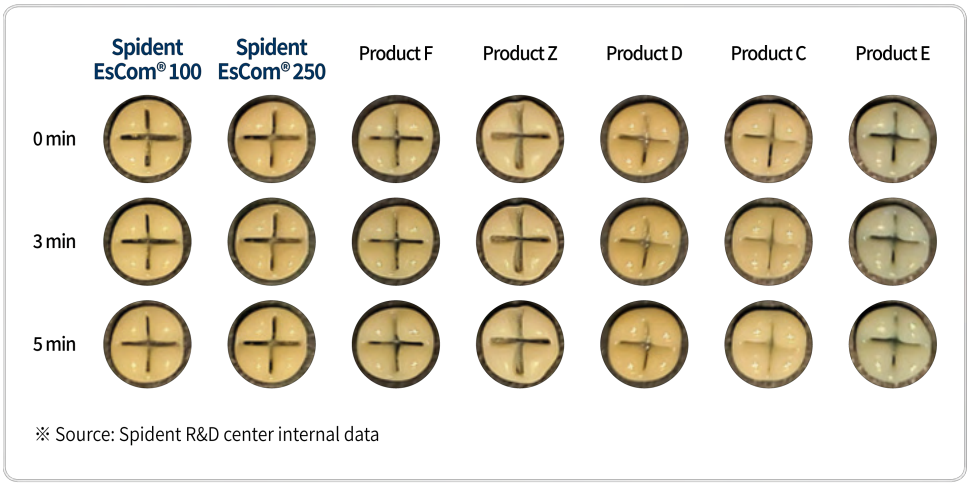


▶ Toothbrush Abrasion



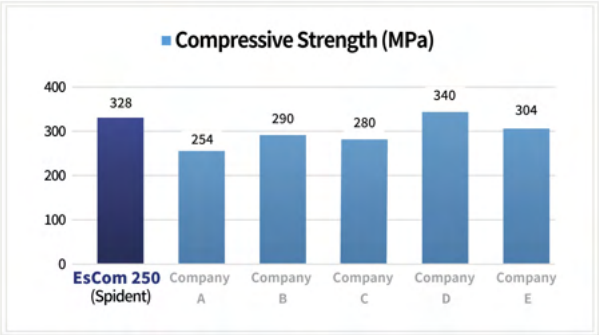
▶ Shape retention

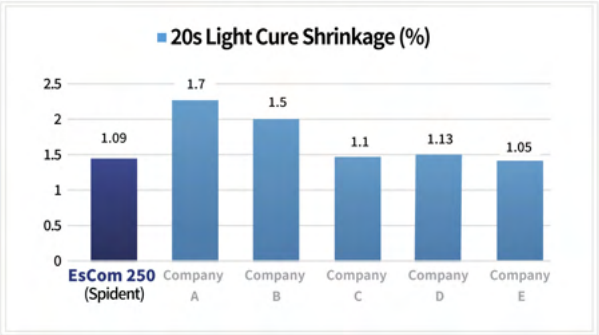
· Paste shapes comparison between before and after 3, 5 minutes in 37°C



▶ Compressive Strength (Mpa) / 20s Light Cure Shrinkage (%)

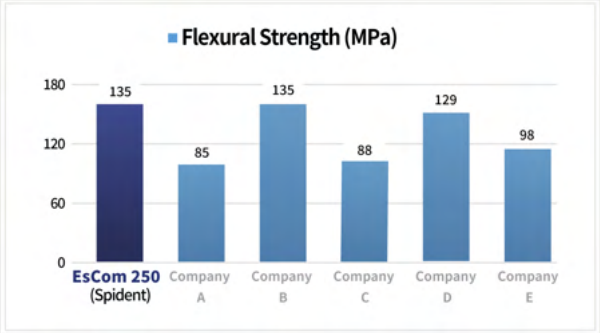
※ Source: Spident R&D center internal data

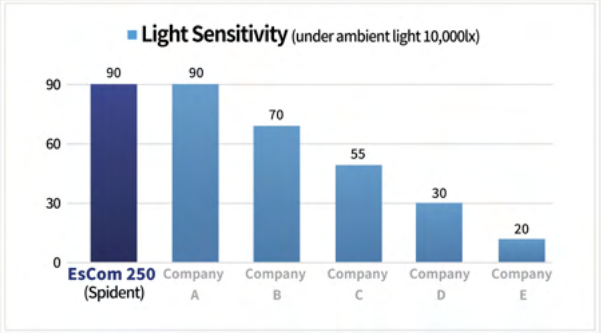




▶ Flexural Strength (Mpa) / Light Sensitivity (%)

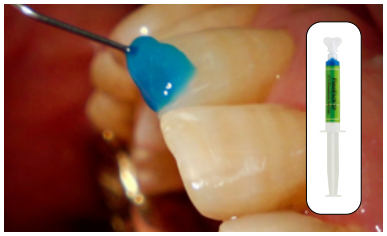
※ Source: Spident R&D center internal data





Clinical Case ▶ Anterior Restoration

[Figure. 1] Before treatment



[Figure. 2] After applying FineEtch etchant for 10~15 seconds, Rinse & Dry

[Figure. 3] Applying EsBond Adhesive and Light-curing for 10 seconds (LED 1200mW /cm²)

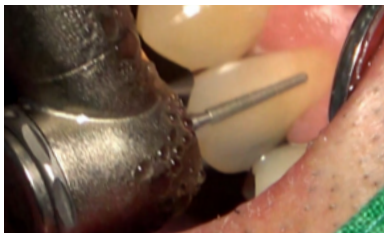
[Figure. 4] 4. After filling with EsCom250 using stopstrip, contouring and light-curing for 20 seconds (LED 1200mW /cm²)

[Figure. 5] Polishing & Finishing

[Figure. 6] After treatment

Clinical Case ▶ Class V Restoration

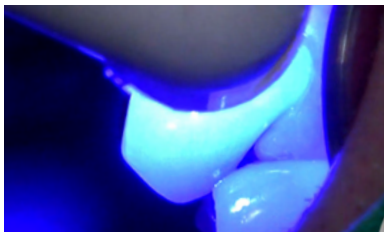
[Figure. 1] Before treatment



[Figure. 2] Tooth preparation

[Figure. 3] After applying FineEtch etchant for 10~15 seconds, Rinse & Dry

[Figure. 4] Applying EsBond adhesive



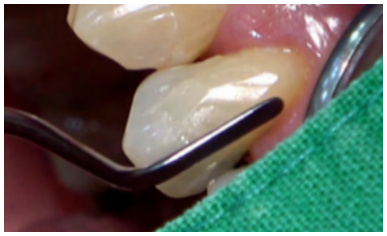
[Figure. 5] Light-curing for 10 seconds (LED 1200mW /cm^2)

[Figure. 6] Restoration with Esflow for base liner

[Figure. 7] Light-curing for 10 seconds (LED 1200mW /cm^2)

[Figure. 8] Selecting Shade

[Figure. 9] Restoration with EsCom250

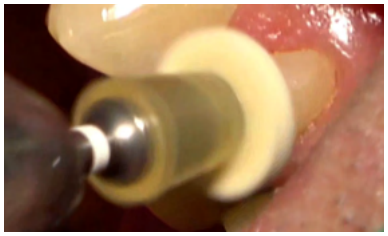


[Figure. 10] Contouring

[Figure. 11] Light-curing for 20 seconds (LED 1200mW /cm^2)

[Figure. 12-1] Polishing

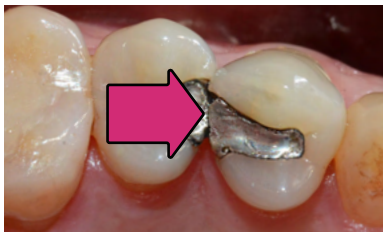
[Figure. 12-2] Polishing



[Figure. 12-3] Finishing

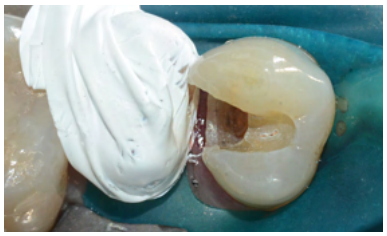
[Figure. 13] After treatment

Clinical Case ▶ Posterior Restoration



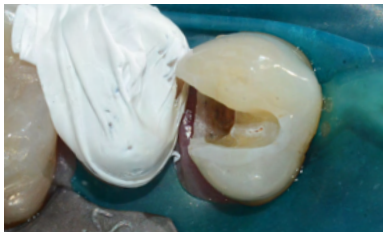
[Figure. 1] Before treatment

[Figure. 2] Remove amalgam

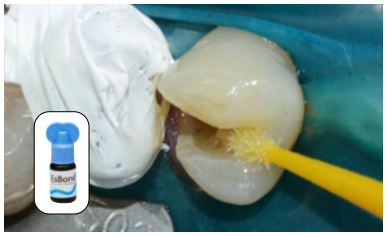


[Figure. 3] Isolate with Teflon Tape

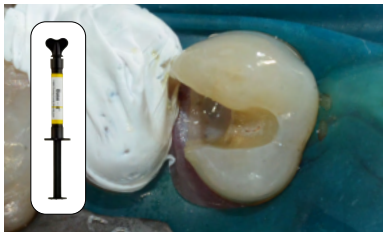
[Figure. 4] Applying FineEtch Etchant for 10~15 seconds



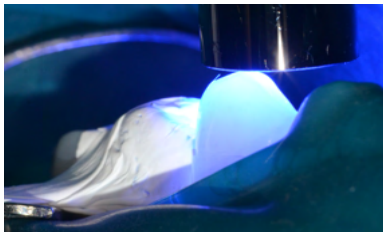
[Figure. 5] Rinse thoroughly with water and Dry



[Figure. 6] Applying EsBond adhesive and Light-curing for 10 seconds (LED 1200mW /cm²)

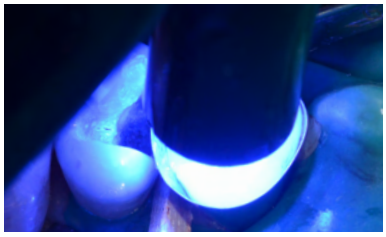


[Figure. 7] Restoration with Base it for liner



[Figure. 8] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 9] Restoration with Esflow LV for Base

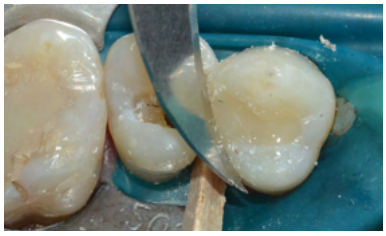


[Figure. 10] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 11] Build up the wall at proximal side and Light-curing for 20 seconds (LED 1200mW /cm²)

[Figure. 12] Restoration with EsCom 250

[Figure. 13] Light-curing for 20 seconds (LED 1200mW /cm²)



[Figure. 14] Remove the excess filling resin

[Figure. 15] Polishing & Finishing

Clinical Case ▶ Posterior Restoration

[Figure. 16] Before treatment

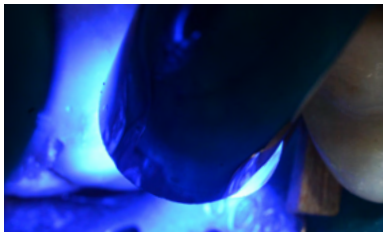
[Figure. 17] Remove amalgam

[Figure. 18] After applying FineEtch etchant for 10~15 seconds, Rinse & Dry

[Figure. 19] Applying EsBond adhesive

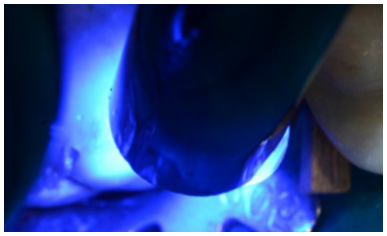
[Figure. 20] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 21] Restoration with Base it for liner



[Figure. 22] Light-curing for 10 seconds (LED 1200mW /cm²)

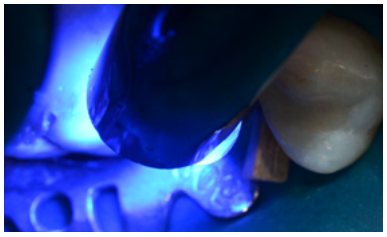
[Figure. 23] Restoration with Esflow LV for Base



[Figure. 24] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 25] Build up the wall at proximal side and Light-curing for 20 seconds (LED 1200mW /cm²)

[Figure. 26] Restoration with EsCom 250



[Figure. 27] Light-curing for 20 seconds (LED 1200mW /cm²)

[Figure. 28] Polishing & Finishing

[Figure. 29] Polishing & Finishing

[Figure. 30] After treatment.

Using EsFlow® and EsFlow® LV with Different Levels of Flowability

Jung. J. K. Dental Clinic

Daseul jung

Introduction

Many Korean dentists still prefer to use conventional paste type resin composites. However, there is a growing trend of using flowable composites for wider clinical indications.

The aforementioned trend is fueled by a significant improvement in mechanical properties and color stability of the flowable composite materials to a level similar to that of the conventional composite materials. As a result, the number of dental practitioners who prefer to use flowable resin composites is increasing. Flowable composites are easy to handle and ideal for use in small preparations, because syringes containing flowable composites allow for easy dispensing with very small gauge needles for minimally invasive cavities.

EsFlow and EsFlow LV by SPIDENT, flowable composites with different fluidity can be applied to various clinical cases.

The amount of fluidity varies significantly from one product to another. Typical flowable resin composites have varying viscosity depending on the degree of spreading under constant pressure. Flowable resin composites with high fluidity have a small contact angleand show a great compatibility with the cavity wall. Therefore, it is advantageous to use them for the restoration of narrow and deep areas as the liner for the posterior teeth.

In contrast, flowable resin composites with low fluidity are recommended for a direct restoration, such as pit and fissure caries, class III and class IV cavities, because they have relatively high physical and mechanical properties.

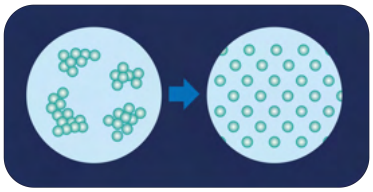
Understanding different characteristics of EsFlow and EsFlow LV helps clinicians to apply resin composites not only to the typical clinical cases (root surface caries, class III and IV cavities, pit and fissure caries, etc.), but also to various other cases, such as base/liner, spot · pit caries, amelogenesis imperfecta, fixation of splinting teeth, directbondingbridge immediately after the dental extraction, restoration of deciduous teeth, masking the discolored tooth, and repairing the provisional restoration.

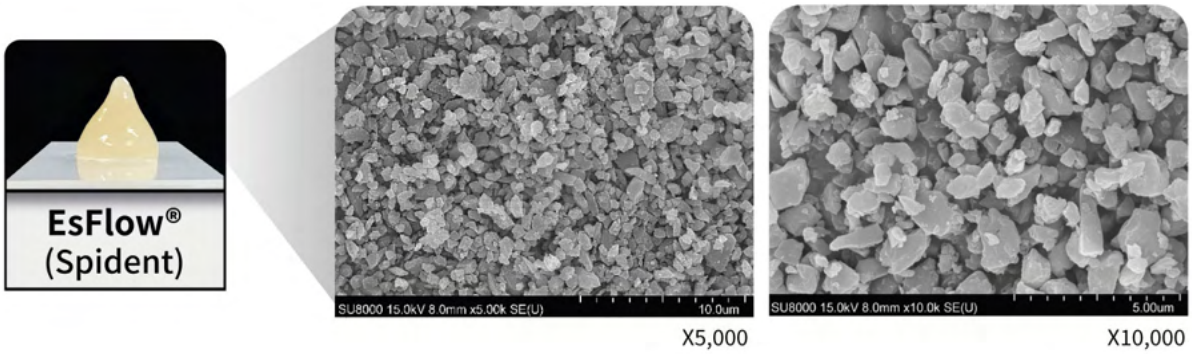
Spident has recently added Opaque shades of AO2 and AO3 to its line-up of shades A1 to A4, B2 and Blue in order to apply its products in wider cases. As a clinician, having the choice of various shades is a great boon when treating patients.

Furthermore, radiopacity of this product is an essential property which allows clinical diagnosis convenient. Utilizing efficiently the difference in viscosities of two different flowable resin products, complex resin restorations can be carried out aesthetically pleasing in color with a simple and precise application.

▶EsFlow Nano Technology

Unique surface treatment of nano inorganic filler and high density & uniform dispersion technology. The technology accomplished wear resistance and high physical property.





X5,000 X10,000

* Source Spident R&D center internal data.

▶ Optimum consistency

· High viscosity suitable for class I ~ V restoration (EsFlow)
· Low viscosity suitable for lining (EsFlow LV)

▶ Excellent Marginal Adaption

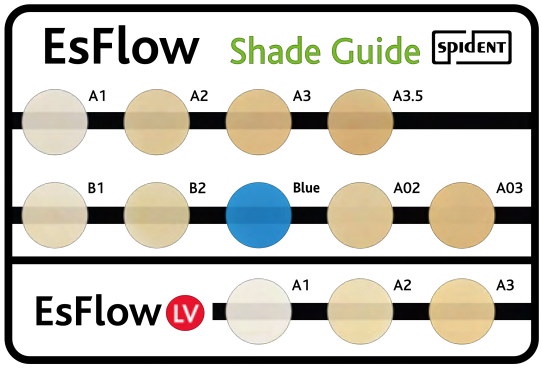
· Long-term successful restoration
· Decrease microleakage and reduce the postoperative sensitivity

▶ Next generation nano hybrid composite

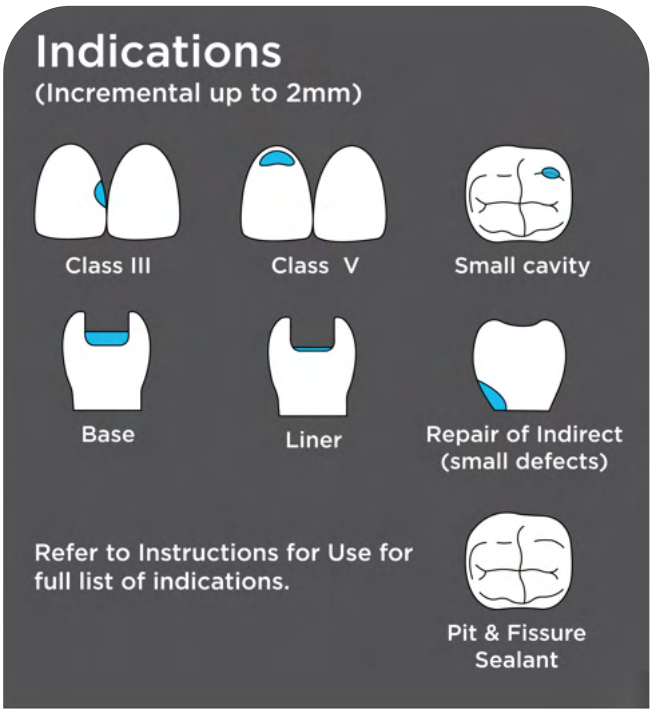
· Easy polish
· High strength
· High wear resistance

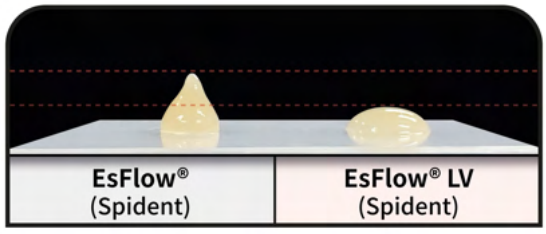
▶ "EsFlow" shade

· A1, A2, A3, A3.5, B2, Blue, AO2, AO3 (EsFlow)
· A1, A2, A3 (EsFlow LV)

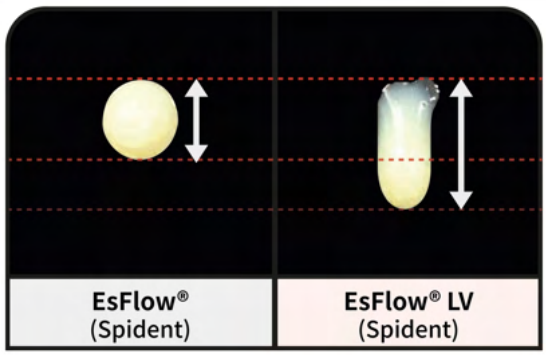


▶ EsFlow/ EsFlow LV Indications





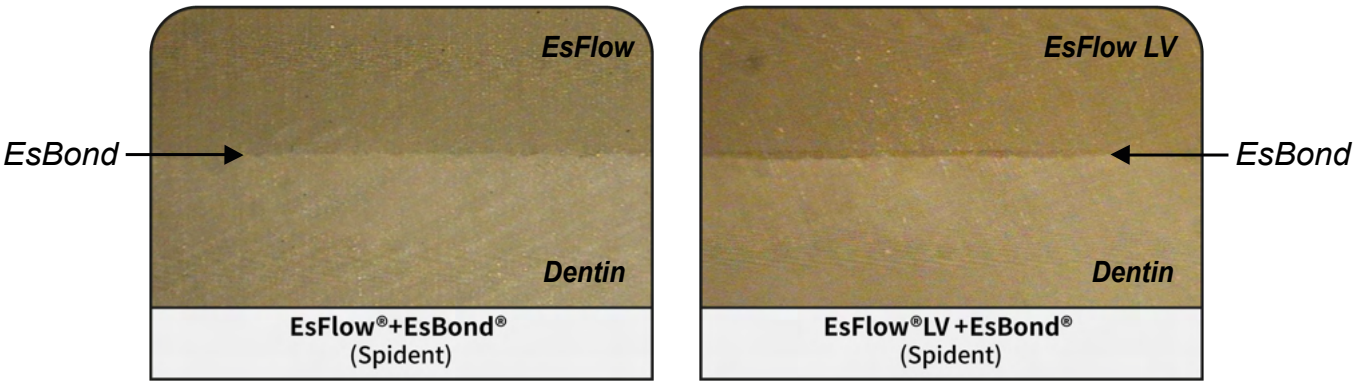
*Spident R&D center internal data.



*Spident R&D center internal data.

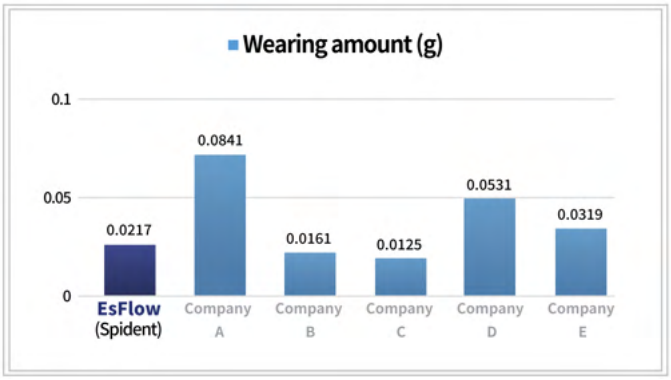
▶ Excellent Flowability & Good Marginal Adaptation

· EsFlow & EsFlow LV flow well into the cavity surface without air bubbles.

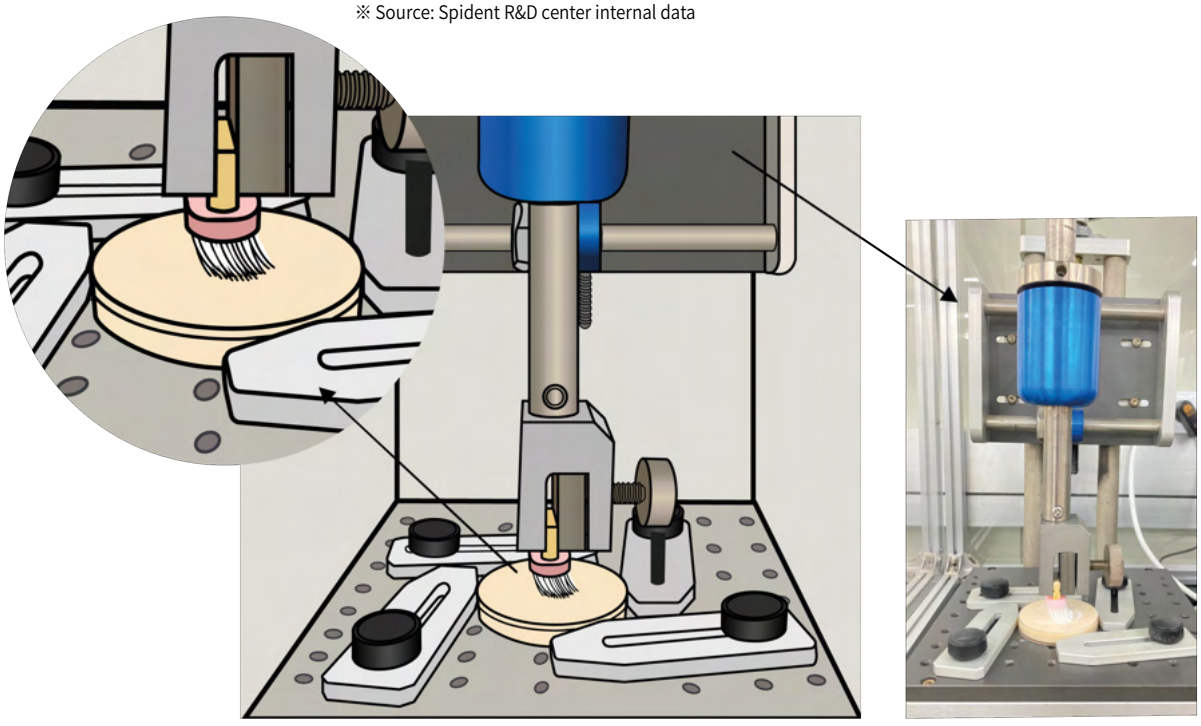


※ Source: Spident R&D center internal data

▶ Tooth Brushing Wearing Test (10,000 times)

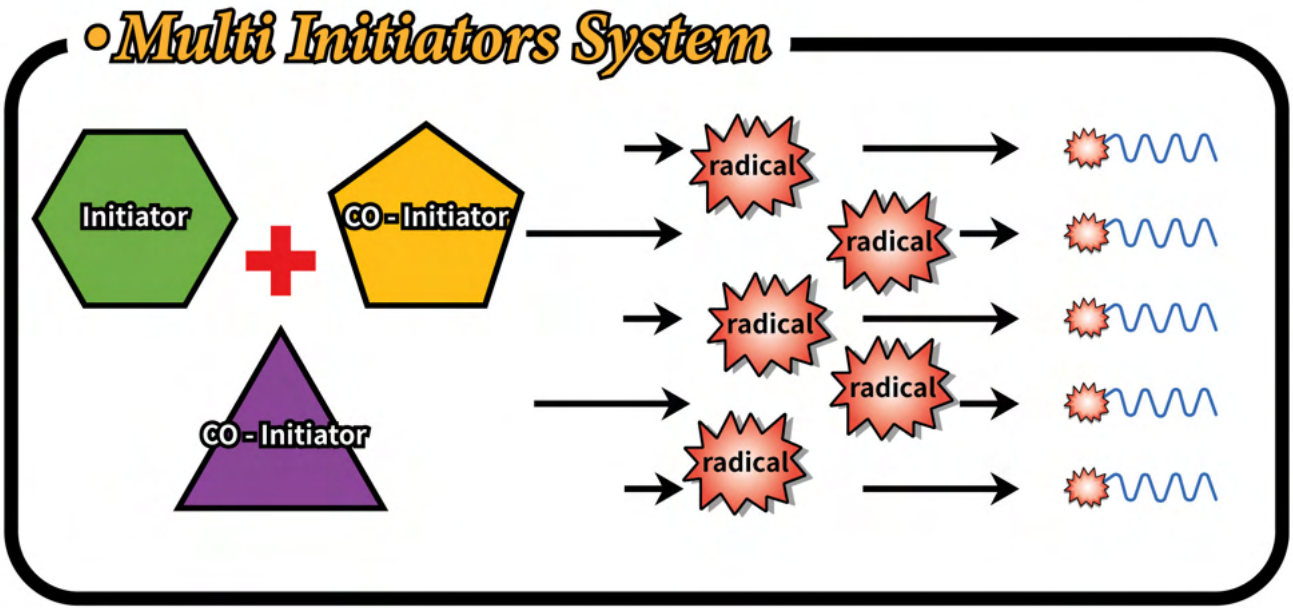


※ Source: Spident R&D center internal data



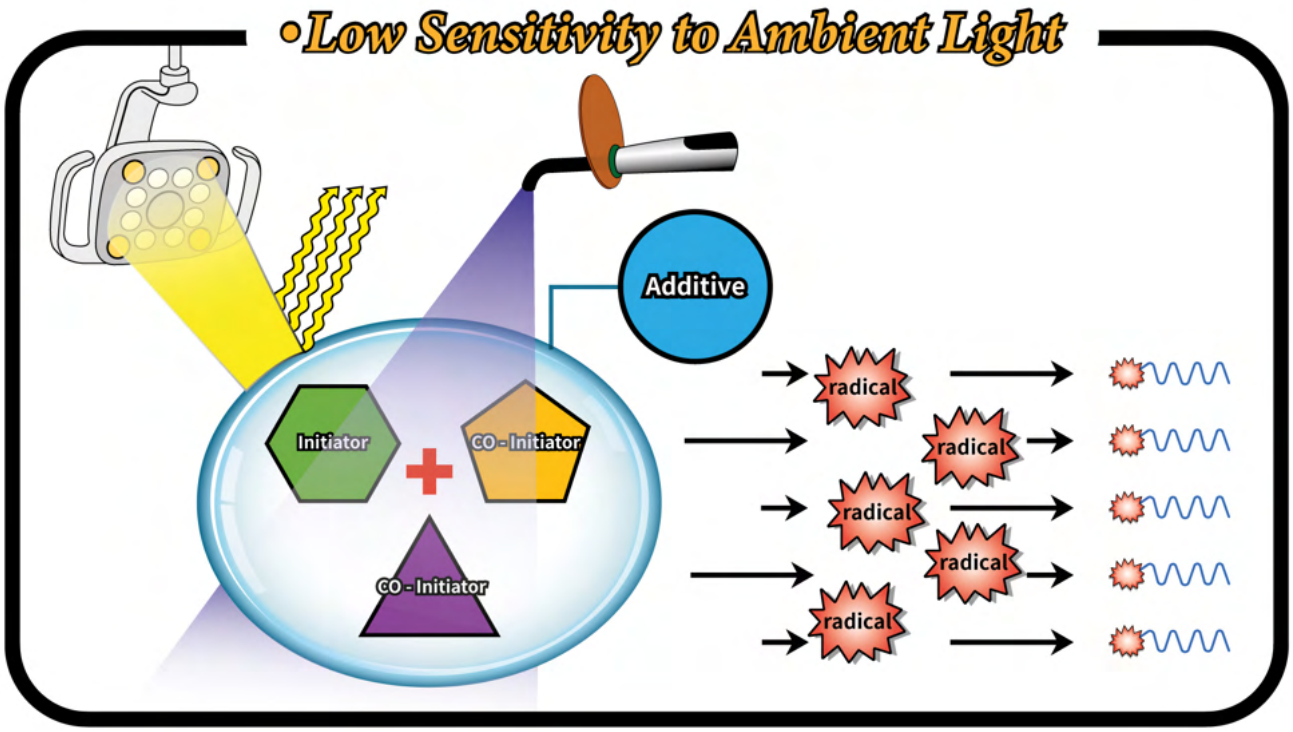
▶ Superior Degree of Conversion

· Multi-initiators allow radical reaction, enabling high polymerization conversion rates.

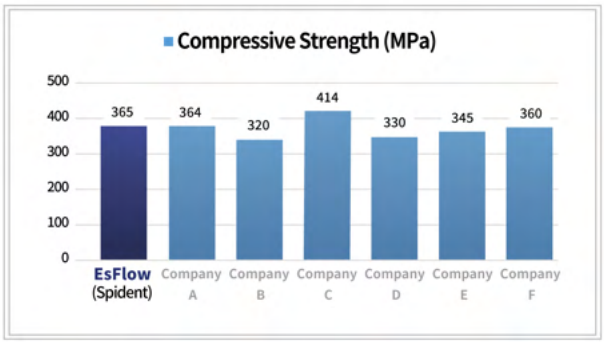


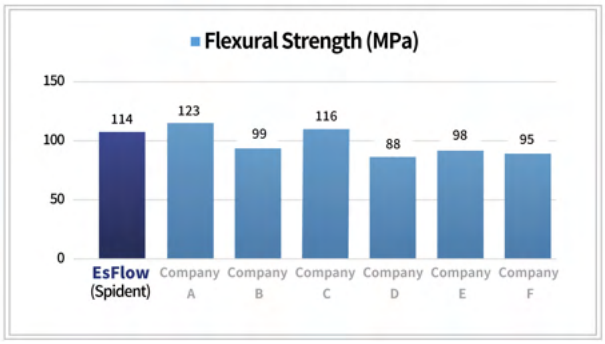
▶ Low Sensitivity to Ambient Light

· Additive absorbs or blocks ambient light to delay the light polymerization time.
In result, User can have a long working time with EsFlow.



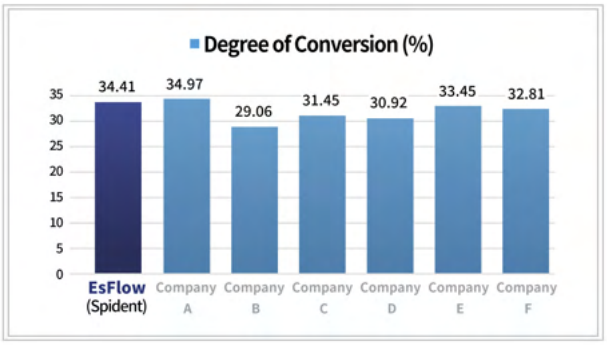
▶ Compressive Strength (Mpa) / Flexural Strength (Mpa)

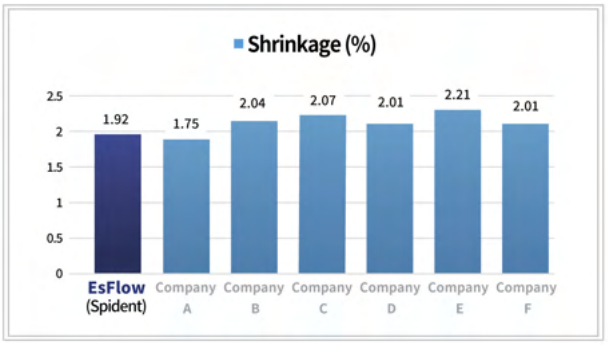




※ Source: Spident R&D center internal data

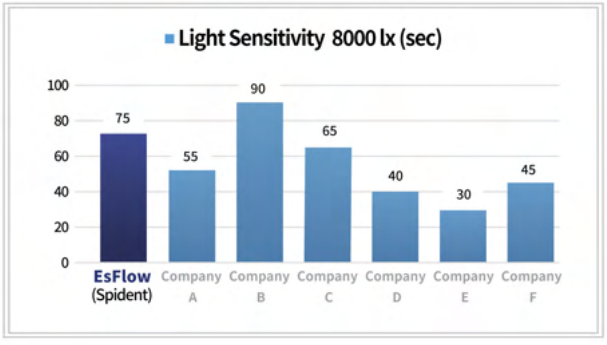
▶ Degree of Conversion (%) / Shrinkage (%)

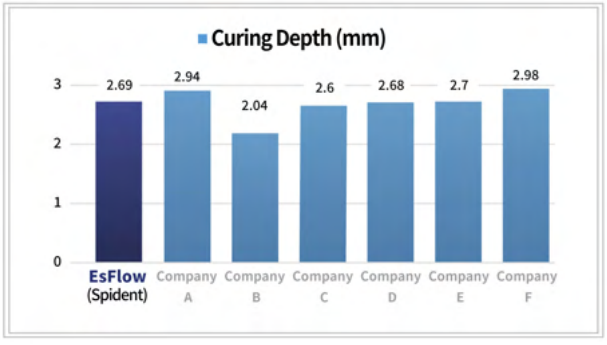




※ Source: Spident R&D center internal data

▶ Light Sensitivity 8000 lx (sec) / Curing Depth (mm)

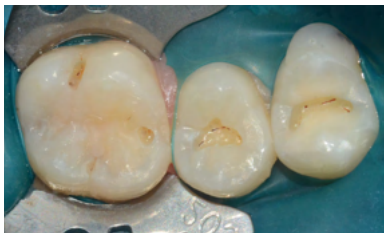




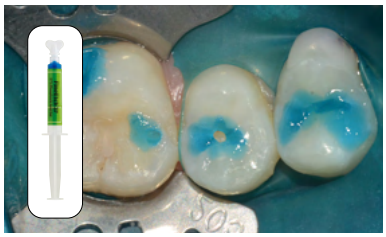
※ Source: Spident R&D center internal data

Clinical Case

[Figure. 1] Before treatment



[Figure. 2] Tooth Preparation

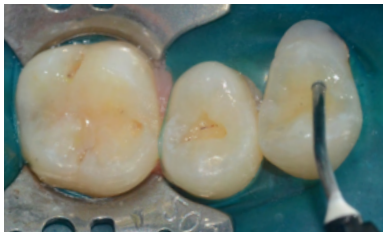


[Figure. 3] After applying FineEtch etchant for 10~15 seconds, Rinse & Dry

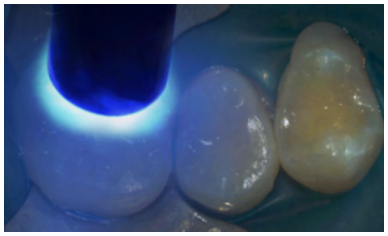
[Figure. 4] Applying EsBond adhesive

[Figure.5] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 6-1] Restoration with Esflow LV for Base



[Figure. 6-2] Restoration with Esflow LV for Base



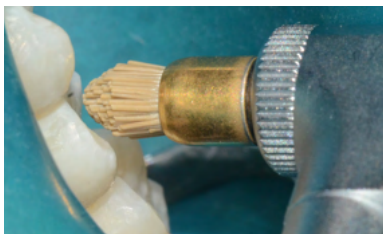
[Figure. 7] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 8-1] Restoration with Esflow

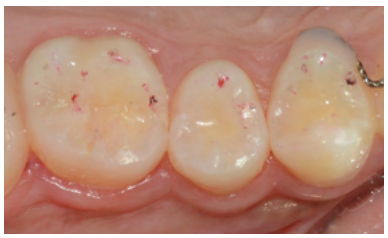
[Figure. 8-2] Restoration with Esflow

[Figure. 9] Light-curing for 20 seconds (LED 1200mW /cm²)

[Figure. 10-1] Polishing & Finishing



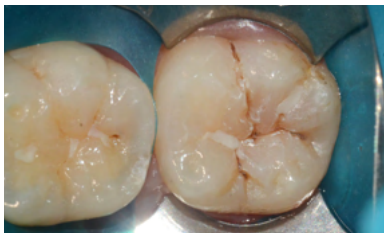
[Figure. 10-2] Polishing & Finishing



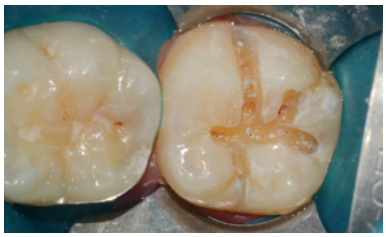
[Figure. 11] Bite checking

Clinical Case

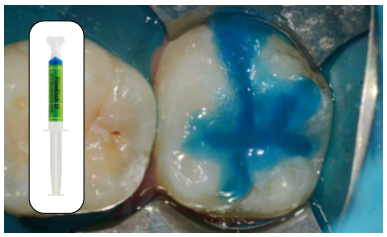
[Figure. 1] Before treatment



[Figure. 2] Applying rubberdam

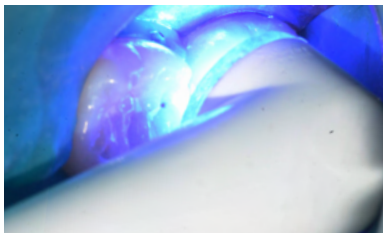


[Figure. 3] Tooth Preparation



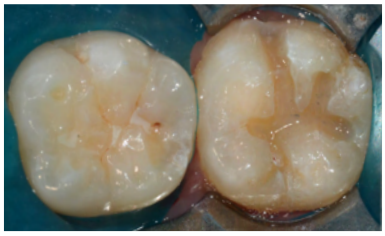
[Figure. 4] After applying FineEtch etchant for 10~15 seconds, Rinse & Dry

[Figure. 5] Applying EsBond adhesive

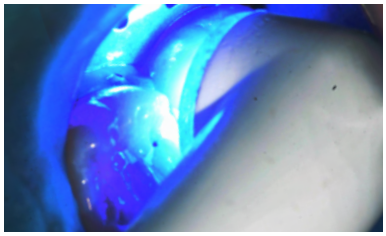


[Figure. 6] Light-curing for 10 seconds (LED 1200mW /cm²)

[Figure. 7-1] Restoration with Esflow LV for Base

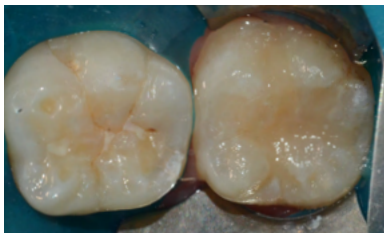


[Figure. 7-2] Restoration with Esflow LV for Base

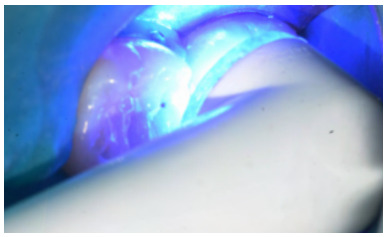


[Figure. 8] Light-curing for 10 seconds (LED 1200mW /cm²)

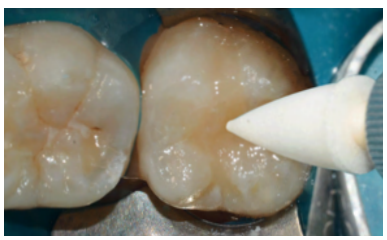
[Figure. 9-1] Restoration with Esflow



[Figure. 9-2] Restoration with Esflow



[Figure. 10] Light-curing for 20 seconds (LED 1200mW /cm²)



[Figure. 11] Polishing & Finishing

[Figure. 12] After treatment

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