

“德山”力盾封閉保護劑

“Tokuyama” Shield Force *Plus*

衛署醫器輸字第 022217 號

使用前請務必詳閱原廠之使用說明書並遵照指示使用

產品敘述

1. 本產品是一種單一劑，一次塗抹，光固化密封膠，主要用於牙本質過敏症的治療。本產品有效地浸潤和密封牙本質小管，進而抑制液體在牙本質小管內的流動，以防止過敏。光固化本產品有助於防止因磨損與侵蝕所造成的牙本質損傷。
2. 波長範圍為 400 -500 nm (峰值: 470 nm)的光固化機可以用來固化本產品。
3. 本產品含有磷酸單體，雙酚A二(2- 羥基丙氧基)，甲基丙烯酸酯 (Bis-GMA)，三乙二醇二甲基丙烯酸酯，2- 羥乙基甲基丙烯酸 (HEMA)，樟腦醌，酒精和純淨水。配藥完成時的PH值約為 2.0。
4. 本產品配好後以瓶裝出貨。

用途、效能

- 牙本質過敏症的治療
- 防止暴露在外牙本質的磨損和腐蝕
- 緩和/或預防牙齒直接或間接修復準備後的牙齒過敏

禁忌症

1. 本產品含有甲基丙烯酸單體，有機溶劑和酸。對甲基丙烯酸單體，相關單體，對有機溶劑或酸過敏的病患不可使用本產品。
2. 本產品不適用於
 - 準備牙齦復位(Gingival reattachment)的齦下區的治療
 - 直接覆髓
 - 根管封閉
3. 如果病人有嚴重的牙齦發炎（特別是有可能引發組織腐肉的情況，例如急性壞死性潰瘍性齦炎(ANUG)），請勿使用。

警告及注意事項

1. 除了上述列舉的情況，本產品不可用作其他任何用途。本產品僅能按照規定使用。
2. 本產品只出售給擁有牙醫執照的專業人士並供他們使用，不對非專業的牙科醫護人員出售，也不適合他們使用。
3. 若安全封條被破壞或有篡改過的痕跡時，請勿使用本產品。
4. 若本產品引發過敏反應，請立即停止使用。
5. 接觸本產品時皆需使用檢查手套（塑膠，乙烯基或者乳膠）以避免甲基丙烯酸單體可能引發的過敏反應。注意某些物質/材料有可能穿透檢查手套。本產品穿透檢查手套時，請脫下手套，扔掉處理，並馬上用清水徹底清洗雙手。
6. 避免本產品與眼睛，粘膜，皮膚以及衣物的接觸。
 - 如果本產品誤入眼內，要立即用清水徹底沖洗並馬上諮詢眼科醫生。
 - 如果本產品進到粘膜內，要立即擦拭患處，並用清水徹底沖洗。由於蛋白質凝固，患處可能出現白化，但白化組織應會在 24 小時內消失。若白化組織於 24 小時內尚未消失，要立即與醫生聯繫，接受醫生的指導和治療。
 - 如果本產品粘到皮膚或者衣物上，要立即用酒精棉籤或紗布擦拭。
 - 治療後請患者馬上漱口。

7. 本產品不可以吞食或者吸入。攝入或者吸入會引起嚴重灼傷。
8. 為防止不慎吞食本產品，請勿放置於病人及孩童可接觸到的場所。
9. 由於本產品是易燃品，不可將它及其蒸汽暴露在火源下。
10. 為避免交叉感染，本產品包裝盒內的單次性塗藥器不可重複使用。
11. 本產品包裝盒內的配藥套管，須每次使用後徹底用酒精清洗。
12. 使用光固化裝置時，要隨時佩戴保護眼罩，眼鏡或者護目鏡。

藥品及材料的注意事項

1. 一些材料和藥品（止血溶液）即使在用清水徹底清洗後仍會在長時間內抑制本產品的固化。含有下列成分的產品請勿使用。
 - 丁香酚
 - 過氧化氫
 - 次氯酸鈉
 - 二氯銀氟【分子結構式: $\text{Ag}(\text{NH}_3)_2\text{F}$ 】
 - 對氯酚，2-甲氧基苯酚，苯酚等
 - 氧化鋁
 - 硫酸鐵
 - 硫酸鋁
 - 腎上腺素
2. 本產品塗敷後使用磷酸可能減低治療效果。

保存方法

1. 冷藏在 0 到 10 °C (32 to 50 °F) 的場所。
2. 避免陽光直射，遠離熱源，火花和明火。
3. 超過瓶上/包裝上所標明的使用期限後請勿使用。

處置

未使用的本產品要以紗布或棉等惰性吸水材料吸收，並按當地規定進行處理。

型號及規格

TOKUYAMA SHIELD FORCE PLUS KIT

Content: Bottle 3mL x 1
Disposable applicator (Superfine) x 25
Dispensing Well x 1

TOKUYAMA SHIELD FORCE PLUS Refill

Content: Bottle 3mL x 1

製造廠名稱：Tokuyama Dental Corporation Kashima Factory

製造廠地址：26, Sunayama, Kamisu-shi, Ibaraki 314-0255, Japan

藥商名稱：傑基興業股份有限公司

藥商地址：新北市三重區興德路 111-8 號 13 樓

ENGLISH

Read all information, precautions and notes before using.

PRODUCT DESCRIPTION AND GENERAL INFORMATION

1. TOKUYAMA SHIELD FORCE PLUS is a one-component, single application, light-cured protective sealant designed for the treatment of hypersensitive dentin. TOKUYAMA SHIELD FORCE PLUS effectively infiltrates and seals exposed dentinal tubules to inhibit the flow of fluid through the tubules which is the cause of sensitivity. At the same time the durable coat of cured TOKUYAMA SHIELD FORCE PLUS helps prevent loss of dentin due to abrasion and/or erosion of exposed cervical dentin.
2. A light-curing unit with a wavelength range of 400 to 500 nm (peak: 470 nm) may be used for curing TOKUYAMA SHIELD FORCE PLUS.
3. TOKUYAMA SHIELD FORCE PLUS contains phosphoric acid monomer, bisphenol A di(2-hydroxy propoxy) dimethacrylate (Bis-GMA), triethylene glycol dimethacrylate, 2-hydroxyethyl methacrylate (HEMA), camphorquinone, alcohol and purified water. The pH level immediately after dispensing is approximately 2.0.
4. TOKUYAMA SHIELD FORCE PLUS is dispensed in a bottle.

INDICATIONS

TOKUYAMA SHIELD FORCE PLUS is indicated for:

- Treatment of hypersensitive dentin,
- Reduction of abrasion and erosion of exposed cervical dentin,
- Alleviation and/or prevention of tooth sensitivity after tooth preparation for direct and indirect restorations.

CONTRAINDICATIONS

- 1) TOKUYAMA SHIELD FORCE PLUS contains methacrylic monomers, organic solvents and acids. DO NOT use TOKUYAMA SHIELD FORCE PLUS for patients allergic to or hypersensitive to methacrylic monomers, related monomers, organic solvents and acids.
- 2) TOKUYAMA SHIELD FORCE PLUS is NOT indicated for:
 - Treatment of subgingival area where the gingival reattachment is expected,
 - Direct pulp capping,
 - Root canal sealing.
- 3) Not to be used if the patient suffers from severe gingival inflammation (especially conditions which can lead to tissue sloughing, e.g. acute necrotizing ulcerative gingivitis (ANUG)).

PRECAUTIONS

- 1) DO NOT use TOKUYAMA SHIELD FORCE PLUS for any purposes other than those listed herein. Use TOKUYAMA SHIELD FORCE PLUS only as directed.
- 2) TOKUYAMA SHIELD FORCE PLUS is designed for sale and use by licensed dental care professionals only. It is not designed for sale nor is suitable for use by non-dental care professionals.
- 3) DO NOT use TOKUYAMA SHIELD FORCE PLUS if the safety seals are broken or appear to have been tampered with.
- 4) If TOKUYAMA SHIELD FORCE PLUS causes an allergic reaction, discontinue its use immediately.
- 5) Use examination gloves (plastic, vinyl or latex) at all times when handling TOKUYAMA SHIELD FORCE PLUS to avoid the possibility of allergic reactions from methacrylic monomers. Note: Certain substances/materials may penetrate through examination gloves. If TOKUYAMA SHIELD FORCE PLUS comes in contact with the examination gloves, remove and dispose of the gloves, and wash hands thoroughly with water as soon as possible.
- 6) Avoid contact of TOKUYAMA SHIELD FORCE PLUS with eyes, mucous membrane, skin and clothing.
 - If TOKUYAMA SHIELD FORCE PLUS comes in contact with the eyes, thoroughly flush eyes with water and immediately contact an ophthalmologist.
 - If TOKUYAMA SHIELD FORCE PLUS comes in contact with the mucous membrane, wipe the affected area immediately, and thoroughly flush the area with water. Affected areas may be whitened from protein coagulation, but such whitening tissue should disappear within 24 hours. If such whitening does not disappear after 24 hours, immediately contact a physician, and the patient should be so advised.
 - If TOKUYAMA SHIELD FORCE PLUS comes into contact with the skin or clothing, immediately saturate the area with alcohol-soaked cotton swab or gauze.
 - Instruct the patient to rinse his/her mouth immediately after treatment.
- 7) TOKUYAMA SHIELD FORCE PLUS should not be ingested or aspirated. Ingestion or aspiration may cause serious injury.
- 8) To avoid the unintentional ingestion of TOKUYAMA SHIELD FORCE PLUS, do not leave it unsupervised within the reach of patients and children.
- 9) DO NOT expose TOKUYAMA SHIELD FORCE PLUS or its vapor to open flame because TOKUYAMA SHIELD FORCE PLUS is flammable.
- 10) To avoid cross infection, DO NOT reuse the disposable applicator included in the TOKUYAMA SHIELD FORCE PLUS package.
- 11) Clean the dispensing well included in the TOKUYAMA SHIELD FORCE PLUS package thoroughly with alcohol after each use.
- 12) When using a light-curing unit, protective eye shields, glasses or goggles should be worn at all times.

PRECAUTIONS FOR MEDICAMENTS AND MATERIALS

- 1) Some materials and medicaments (hemostatic solutions) inhibit curing of TOKUYAMA SHIELD FORCE PLUS for an extended period even after meticulous cleansing with water. DO NOT USE products which contain:
 - Eugenol
 - Hydrogen peroxide
 - Sodium hypochlorite
 - Diammine silver fluoride [molecular formula: $\text{Ag}(\text{NH}_3)_2\text{F}$]
 - Phenols such as parachlorophenol, 2-methoxyphenol, phenol
 - Aluminum chloride
 - Ferric sulfate
 - Aluminum sulfate
 - Epinephrine
- 2) Application of phosphoric acid followed by application of TOKUYAMA SHIELD FORCE PLUS may reduce treatment efficacy.

STORAGE

- 1) Store under refrigerated conditions at temperatures between 0 to 10°C (32 to 50°F).
- 2) Keep away from heat, direct sunlight, sparks, and open flames.
- 3) DO NOT use after the indicated expiration date on the bottle/package.

DISPOSAL

Unused TOKUYAMA SHIELD FORCE PLUS is to be absorbed into an inert absorbent material such as gauze or cotton, and disposed of in accordance with local regulations.

CLINICAL PROCEDURES**1. Treatment of dentinal hypersensitivity****1.1. Cleaning**

Clean tooth surface and remove plaque and saliva with a cotton pellet. A rubber cup with a fluoride-free paste under local anesthesia may also be used to clean.

1.2. Isolation

The rubber dam is the preferred method for isolation.

1.3. Drying

Dry the tooth by using a blotting technique or an air syringe technique.

- DO NOT desiccate the hypersensitive dentin. Desiccation can aggravate the hypersensitivity.
- Glass ionomer lining or calcium hydroxide should be applied if the area to be treated is in close proximity to the pulp. DO NOT USE EUGENOL BASED MATERIALS to protect the pulp as these materials will inhibit curing of TOKUYAMA SHIELD FORCE PLUS.

1.4. Dispensing

Open the bottle cap and dispense one or two drops of sealant into the Dispensing Well. Close the bottle cap tightly immediately after dispensing.

- Wipe off the excess sealant on the tip of nozzle before closing.
- Do not mix the sealant with other materials.

1.5. Application

Apply generous amounts of the sealant to the area to be treated using the disposable applicator. Leave undisturbed for 10 seconds or more. If the excess sealant pools on the area, blot the excess with a new disposable applicator.

- Protect the dispensed sealant and the inserted applicator from ambient light before the application using a light blocking plate.
- Complete the application within 5 minutes after dispensing because TOKUYAMA SHIELD FORCE PLUS contains a volatile alcohol.
- If saliva, blood, or other fluids contaminate the applied area, thoroughly rinse the area with water, dry and re-apply the sealant.
- Do not rinse the applied sealant with water except in unintentional contamination.

1.6. Air Dry

Using an oil-free air/water syringe, apply weak air flow continuously to the sealant ~~surface until the runny sealant stays in the same position~~ without any movement (usually for 5 seconds). Finish by using a strong air flow for 5 seconds or more. Use a vacuum aspirator to prevent spatter of the sealant.

- If spattering accidentally occurs, it may cause the tissue to whiten or a possible allergic reaction.
- To prevent spattering, refer to the following tips:
 - 1) To avoid inadvertent strong air;
 - a) Be sure to begin with a weak air flow outside the mouth,
 - b) Direct the air flow at the applied area.
 - 2) Extending the distance of the air/water syringe from the tooth reduces the air flow. The mirror reflection technique is also useful in reducing the air flow.

1.7. Light-cure

Keep the curing light tip within a distance of 2 mm from the surface. Then light-cure the surface for 10 seconds or more. If the surface is too large, divide the area into segments and light-cure each segment individually.

- Confirm that the light-curing unit has sufficient intensity ($>300 \text{ mW/cm}^2$) before using. Note that using a cracked light guide will lower the intensity.

1.8. Check for excess material

Check for excess material in the gingival sulcus, and remove the excess with a scaler or periodontal curette. Instruct the patient to rinse his/her mouth immediately after treatment.

1.9. Test for sensitivity

If a single application of TOKUYAMA SHIELD FORCE PLUS does not sufficiently relieve the hypersensitivity or sustained pain persists, the treatment can be repeated before alternative treatments are indicated. If hypersensitivity persists after a second application, seriously consider other sources of pain, such as traumatic occlusion, pulpal pathology.

- If additional restorations are required due to the esthetic reason, restore according to procedures in step "2.9. Adhesive treatment" and "2.10. Composite resin filling".

1.10. Patient recall

Depending on individual oral hygiene, wear of the TOKUYAMA SHIELD FORCE PLUS may require re-application approximately every six months.

2. TOKUYAMA SHIELD FORCE PLUS sealant under direct restorations to alleviate and/or prevent tooth sensitivity after tooth preparation**2.1. Cleaning**

Thoroughly clean the tooth surface using a rubber cup with a fluoride-free paste then rinse with water.

2.2. Isolation

The rubber dam is the preferred method for isolation.

2.3. Cavity preparation

Prepare the cavity and rinse with water. Add bevels to the enamel margins of anterior preparations (class III, IV, V), as well as chamfers to the margins of posterior preparations (class I, II) because bevels and chamfers assist in masking demarcations between the cavity margins and the restoration, enhancing both esthetics and retention.

2.4. Drying

Dry the cavity by using a blotting technique or an air syringe technique.

- DO NOT desiccate the vital tooth. Desiccation can lead to post-operative sensitivity.
- Glass ionomer lining or calcium hydroxide should be applied if the area to be treated is in close proximity to the pulp. DO NOT USE EUGENOL BASED MATERIALS to protect the pulp as these materials will inhibit curing of TOKUYAMA SHIELD FORCE PLUS.

2.5. Dispensing

Open the bottle cap and dispense one or two drops of sealant into the Dispensing Well. Close the bottle cap tightly immediately after dispensing.

- Wipe off the excess sealant on the tip of nozzle before closing.
- Do not mix the sealant with other materials.

2.6. Application

Apply generous amounts of the sealant to the area to be treated using the disposable applicator. Leave undisturbed for 10 seconds or more. If the excess sealant pools on the area, blot the excess with a new disposable applicator.

- Protect the dispensed sealant and the inserted applicator from ambient light before the application using a light blocking plate.
- Complete the application within 5 minutes after dispensing because TOKUYAMA SHIELD FORCE PLUS contains a volatile alcohol.
- If saliva, blood, or other fluids contaminate the applied area, thoroughly rinse the area with water, dry and re-apply the sealant.
- Do not rinse the applied sealant with water except in unintentional contamination.

2.7. Air Dry

- Using an oil-free air/water syringe, apply weak air flow continuously to the sealant surface until the runny sealant stays in the same position without any movement (usually for 5 seconds). Finish by using a strong air flow for 5 seconds or more. Use a vacuum aspirator to prevent spatter of the sealant.
- If spattering accidentally occurs, it may cause the tissue to whiten or a possible allergic reaction.
 - To prevent spattering, refer to the following tips:
 - 1) To avoid inadvertent strong air;
 - a) Be sure to begin with a weak air flow outside the mouth,
 - b) Direct the air flow at the applied area.
 - 2) Extending the distance of the air/water syringe from the tooth reduces the air flow. The mirror reflection technique is also useful in reducing the air flow.

2.8. Light-cure

- Keep the curing light tip within a distance of 2 mm from the surface. Then light-cure the surface for 10 seconds or more. If the surface is too large, divide the area into segments and light-cure each segment individually.
- Confirm that the light-curing unit has sufficient intensity (>300 mW/cm²) before using. Note that using a cracked light guide will lower the intensity.

2.9. Adhesive treatment

- Immediately apply adhesive as described in manufacturer’s directions for use.
- If using a total etch adhesive system, DO NOT etch the tooth surface prior to the use of TOKUYAMA SHIELD FORCE PLUS.

2.10. Composite resin filling

- Place the restorative material over the cured adhesive according to manufacturer’s directions for use.

3. TOKUYAMA SHIELD FORCE PLUS sealant under indirect restorations to alleviate and/or prevent tooth sensitivity after tooth preparation

3.1. Temporary Restoration

3.1.1. Tooth Preparation

- Following tooth preparation, core build-up and fabrication of the provisional restoration, clean enamel and dentin with water spray and then air dry. Apply a rubber dam or other suitable isolation technique.
- DO NOT desiccate the vital tooth. Desiccation can lead to post-operative sensitivity.
 - Glass ionomer lining or calcium hydroxide should be applied if the area to be treated is in close proximity to the pulp. DO NOT USE EUGENOL BASED MATERIALS to protect the pulp as these materials will inhibit curing of TOKUYAMA SHIELD FORCE PLUS.

3.1.2. Dispensing

- Open the bottle cap and dispense one or two drops of sealant into the Dispensing Well. Close the bottle cap tightly immediately after dispensing.
- Wipe off the excess sealant on the tip of nozzle before closing.
 - Do not mix the sealant with other materials.

3.1.3. Application

- Apply generous amounts of the sealant to the area to be treated using the disposable applicator. Leave undisturbed for 10 seconds or more. If the excess sealant pools on the area, blot the excess with a new disposable applicator.
- Protect the dispensed sealant and the inserted applicator from ambient light before the application using a light blocking plate.
 - Complete the application within 5 minutes after dispensing because TOKUYAMA SHIELD FORCE PLUS contains a volatile alcohol.
 - If saliva, blood, or other fluids contaminate the applied area, thoroughly rinse the area with water, dry and re-apply the sealant.
 - Do not rinse the applied sealant with water except in-unintentional contamination.

3.1.4. Air Dry

- Using an oil-free air/water syringe, apply weak air flow continuously to the sealant surface until the runny sealant stays in the same position without any movement (usually for 5 seconds). Finish by using a strong air flow for 5 seconds or more. Use a vacuum aspirator to prevent spatter of the sealant.
- If spattering accidentally occurs, it may cause the tissue to whiten or a possible allergic reaction.
 - To prevent spattering, refer to the following tips:
 - 1) To avoid inadvertent strong air;
 - a) Be sure to begin with a weak air flow outside the mouth,
 - b) Direct the air flow at the applied area.
 - 2) Extending the distance of the air/water syringe from the tooth reduces the air flow. The mirror reflection technique is also useful in reducing the air flow.

3.1.5. Light-cure

- Keep the curing light tip within a distance of 2 mm from the surface. Then light-cure the surface for 10 seconds or more. If the surface is too large, divide the area into segments and light-cure each segment individually.
- Confirm that the light-curing unit has sufficient intensity (>300 mW/cm²) before using. Note that using a cracked light guide will lower the intensity.

3.1.6. Dismissal

- Wipe the oxygen inhibition layer with alcohol-soaked cotton swab or gauze.

3.1.7. Impression Taking

- Take impression with impression material according to manufacturer’s instructions.

3.1.8. Temporary Cementing

- Seat the temporary/provisional restoration on the tooth with temporary cement (water-based cement) according to manufacturer’s instructions. Temporary stopping (gutta-percha) may also be used for temporary filling.
- Do not use resin-based material (cement/filling) because it may adhere to the cured TOKUYAMA SHIELD FORCE PLUS.

3.2. Permanent Restoration

3.2.1. Cleaning of Cavity/Abutment

- Remove temporary restoration, residual temporary cement and hard deposits from the tooth by ultrasonic scaler or other cleaning instruments. Thoroughly clean all contaminants from the tooth surface to be bonded. Rinse with water and dry in the usual manner.
- Elements listed below, which inhibit the setting of resin cement, should be removed from the tooth surface by thoroughly cleaning the tooth surface with alcohol, citric acid, EDTA, or the application of phosphoric acid for 2 to 3 seconds before cementation.
 - 1) Silicone oil from fit check material
 - 2) Oil mist from handpiece
 - 3) Saliva, blood and exudates

3.2.2. Cementing

- Cement the restoration with resin cement according to its manufacturer’s instructions.
- The use of multistep resin cements are recommended for cementing. The use of self-adhesive resin cements are not recommended due to potential lowered adhesion of the cement.

The manufacturer of the TOKUYAMA SHIELD FORCE PLUS is not responsible for damage or injury caused by improper use of this product. It is the personal responsibility of the user to ensure that this product is suitable for an appropriate application before use.

Product specifications of the TOKUYAMA SHIELD FORCE PLUS are subject to change without notification. When the product specifications are changed, the instructions and precautions may also be changed.



Manufacturer
Tokuyama Dental Corporation
Kashima Factory
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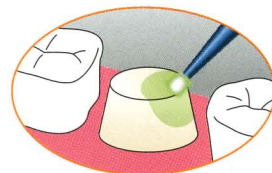
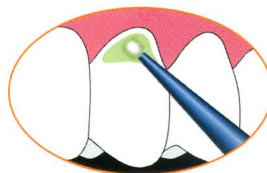
Protective Sealant for Treatment of Hypersensitive Dentin

TOKUYAMA SHIELD FORCE *PLUS*



***Shields You from
Dentinal Hypersensitivity !***

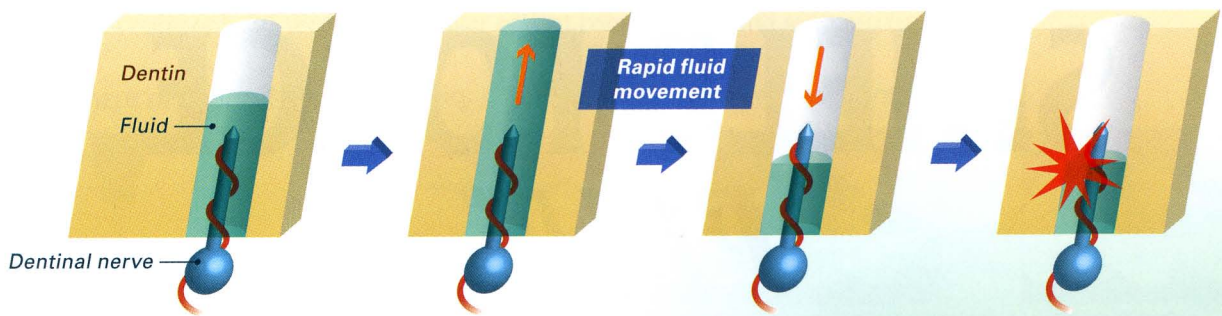
- + Quick and Effective Treatment of Hypersensitive Dentin
- + Superior Sealing Effect
- + Durable Coating Effect
- + Simple Procedure



***Only One Application,
No Rinsing, No Rubbing Required.***

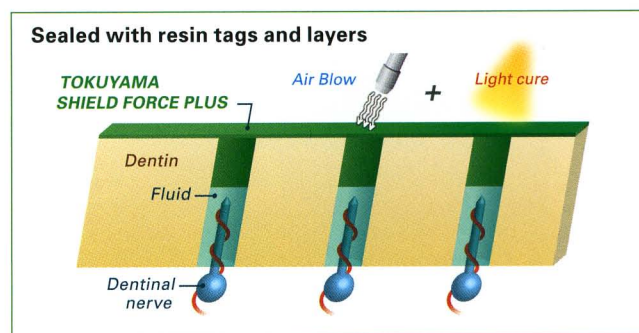
Mechanism of Hypersensitive Dentin

Dentin hypersensitivity is widely said to be caused by rapid fluid movement in the dentinal tubules.

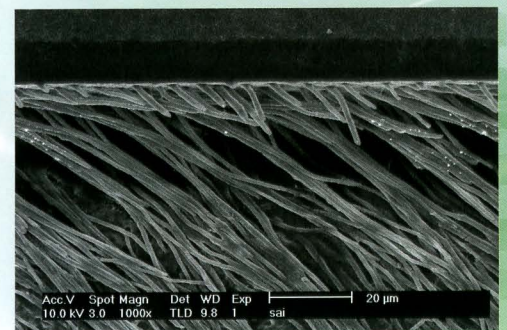


Sealing tubules with TOKUYAMA SHIELD FORCE PLUS

Applying TOKUYAMA SHIELD FORCE PLUS infiltrates and seals exposed dentinal tubules inhibiting the flow of fluid through the tubules which is the cause of sensitivity.



Firmly formed resin tags in dentinal tubules.



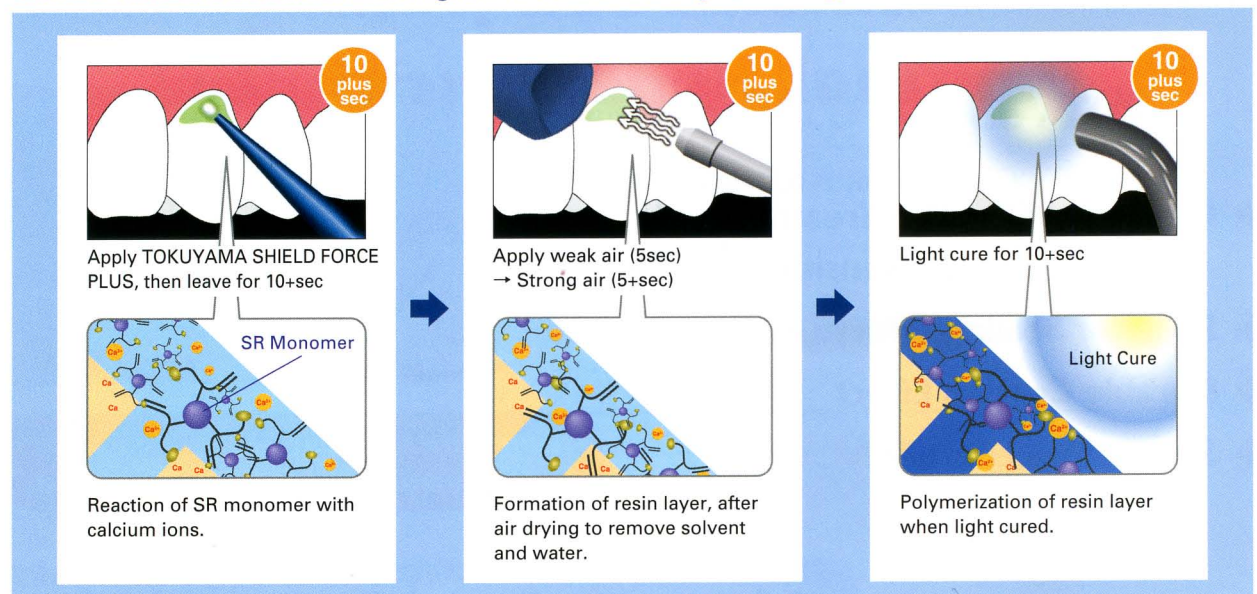
SEM image - Magx1000

** In-house data, R&D, Tokuyama Dental Corporation.
Note: This is a test model demonstrating hypersensitive dentin, using an extracted human tooth ground on the surface to expose the dentinal tubules.

Quick and Effective Treatment of Hypersensitive Dentin

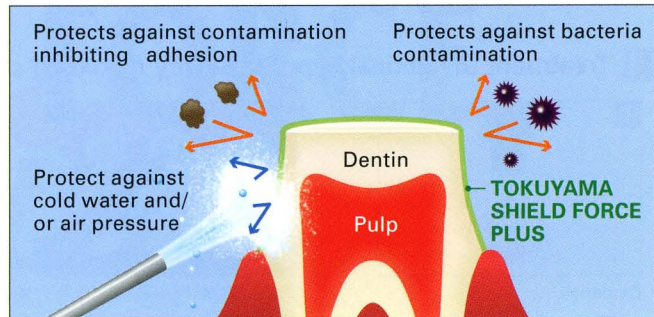
TOKUYAMA SHIELD FORCE PLUS reduces dentinal hypersensitivity immediately after applying, by utilizing Tokuyama's patented technology "Self Reinforcing Monomer (SR Monomer)" it interacts with the calcium ions sealing the dentinal tubules. The air drying step ensures the formation of a thin protective resin layer over the dentin surface and resin tags in the tubules, the final light curing step polymerizes them to solidify.

Clinical Procedure and Schematic Diagram of Self Reinforcing Technology



Superior Sealing Effect

When used in clinical cases under direct/in-direct restorations, TOKUYAMA SHIELD FORCE PLUS will alleviate and/or prevent tooth sensitivity caused by cold water and air pressure during the preparation, simultaneously protecting the tooth from bacteria and unexpected contamination to the dentin. Thanks to the superior sealing effect, TOKUYAMA SHIELD FORCE PLUS will also alleviate and/or prevent post operative sensitivity.

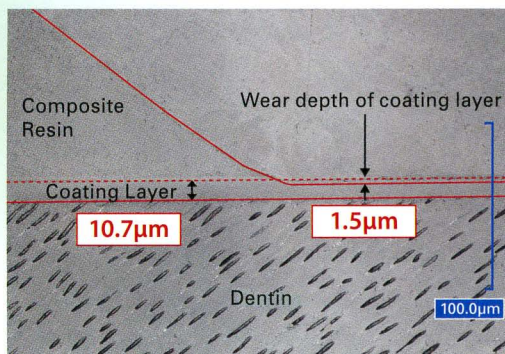
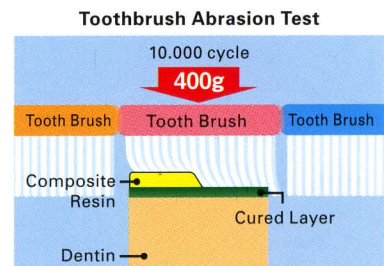


Durable Coating Effect

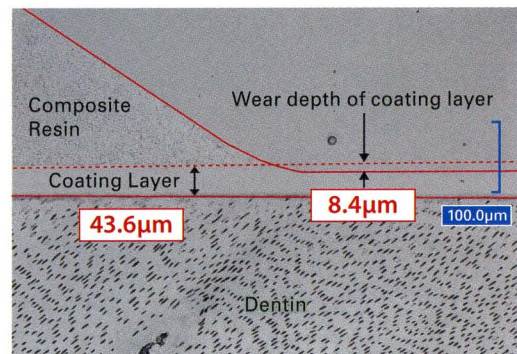
TOKUYAMA SHIELD FORCE PLUS is effective in reducing abrasion and/or erosion of exposed cervical dentin by creating a durable coating layer when light cured. Thanks to the Self Reinforcing Monomer it demonstrates significant durability against toothbrush abrasion regardless of the thin layer that is formed.

Toothbrush Abrasion Test (10,000 cycles)**

The layer of TOKUYAMA SHIELD FORCE PLUS exhibits only 1.5 μm of wear while Seal & Protect®* exhibits 8.4 μm of wear after the test.



TOKUYAMA SHIELD FORCE PLUS

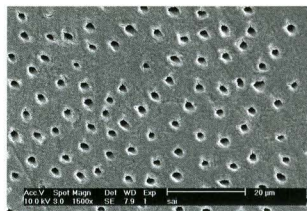


Seal & Protect®*

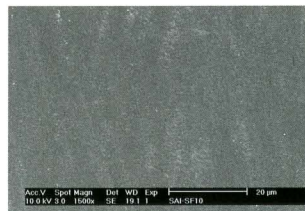
Thermal Cycle Test (10,000 cycles) 4°C - 60°C**

TOKUYAMA SHIELD FORCE PLUS

TOKUYAMA SHIELD FORCE PLUS layer remains over the dentin surface after the test.



Hypersensitive dentin model



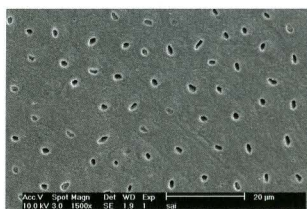
After TOKUYAMA SHIELD FORCE PLUS is applied



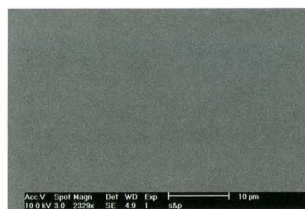
After Thermal Cycle test (10,000)

Seal & Protect®*

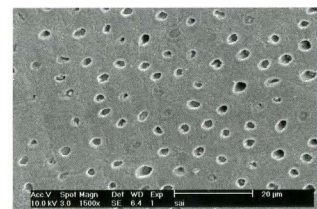
The layer of Seal & Protect®* has washed out and exposed dentin surface was observed after the test.



Hypersensitive dentin model



After Seal & Protect®* is applied



After Thermal Cycle test (10,000)

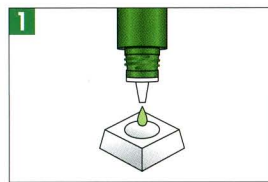
*Not a registered mark of Tokuyama Dental Corporation.

** In-house data, R&D, Tokuyama Dental Corporation.

Simple Procedure

No rinsing and no rubbing is required when applying TOKUYAMA SHIELD FORCE PLUS, making it patient friendly during the application. The procedure is simple and quick; only 1 application of TOKUYAMA SHIELD FORCE PLUS, air dry and light cure, only 30 seconds to greater patient comfort with long term results.

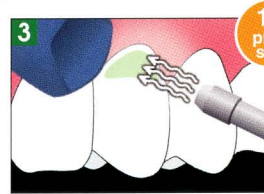
1 Treatment of dentinal hypersensitivity / Coating of exposed cervical dentin



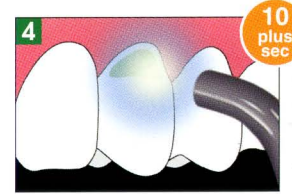
Dispense



Apply TOKUYAMA SHIELD FORCE PLUS, then leave for 10+sec

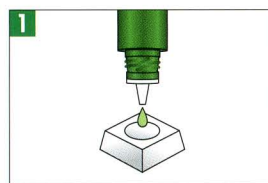


Apply weak air (5sec)
→ Strong air (5+sec)

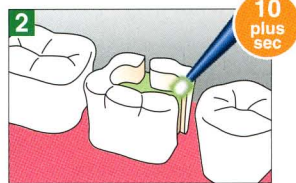


Light cure for 10+sec

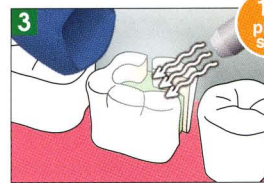
2 Sealing of prepared tooth to alleviate / prevent tooth sensitivity (Direct Restorations)



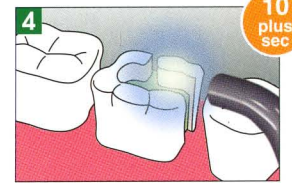
Dispense



Apply TOKUYAMA SHIELD FORCE PLUS, then leave for 10+sec



Apply weak air (5sec)
→ Strong air (5+sec)

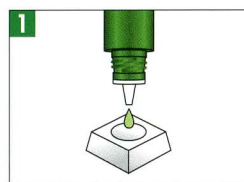


Light cure for 10+sec

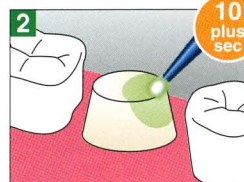


* If using a total etch bonding system, etchant must be applied "AFTER" TOKUYAMA SHIELD FORCE PLUS procedure.

3 Sealing of prepared tooth to alleviate / prevent tooth sensitivity (Indirect Restorations)



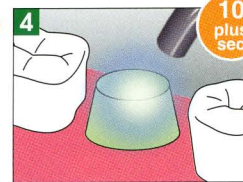
Dispense



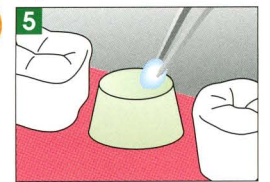
Apply TOKUYAMA SHIELD FORCE PLUS, then leave for 10+sec



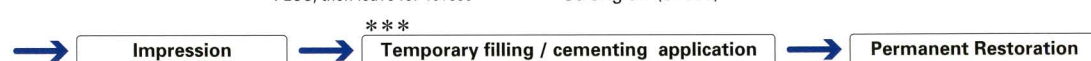
Apply weak air (5sec)
→ Strong air (5+sec)



Light cure for 10+sec



Wipe unpolymerized layer with alcohol



** BEFORE taking impression, it is essential to wipe dentin surface with alcohol, removing unpolymerized layer of TOKUYAMA SHIELD FORCE PLUS that could prevent an accurate impression.

*** Do NOT use temporary resin-based material, it may adhere to the cured TOKUYAMA SHIELD FORCE PLUS. The use of water-based cement would be recommended for temporary cementing, and temporary stopping would be recommended for temporary filling.



TOKUYAMA SHIELD FORCE PLUS

TOKUYAMA SHIELD FORCE PLUS Kit

Bottle 3mL x 1
Disposable applicator (Superfine) x 25
Dispensing Well x 1

TOKUYAMA SHIELD FORCE PLUS Refill

Bottle 3mL x 1

Specifications are subject to change without obligation on the part of the Manufacturer

Manufacturer

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