

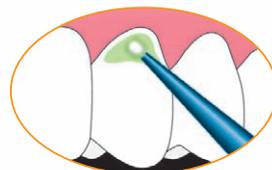
Protective Sealant for Treatment of Hypersensitive Dentin

# TOKUYAMA SHIELD FORCE *PLUS*



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

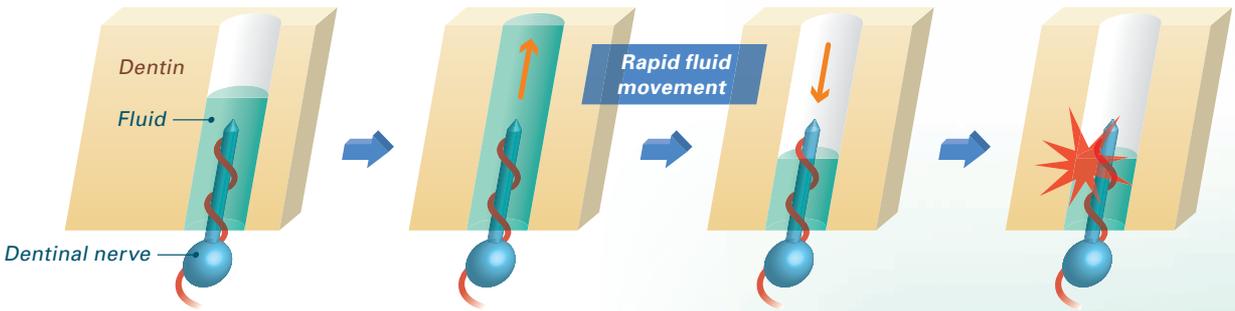
- + Quick and Effective Treatment of Hypersensitive Dentin**
- + Superior Sealing Effect**
- + Durable Coating Effect**
- + Simple Procedure**



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

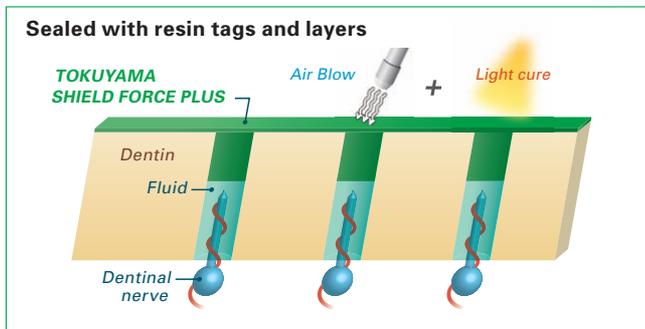
# Mechanism of Hypersensitive Dentin

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

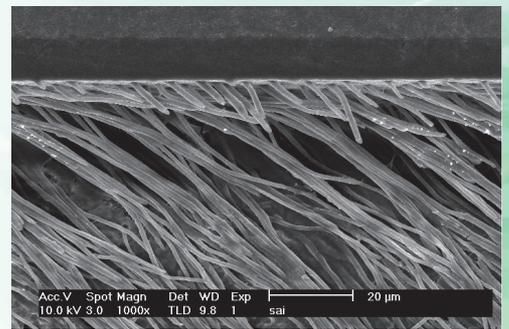


## Sealing tubules with TOKUYAMA SHIELD FORCE PLUS

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.



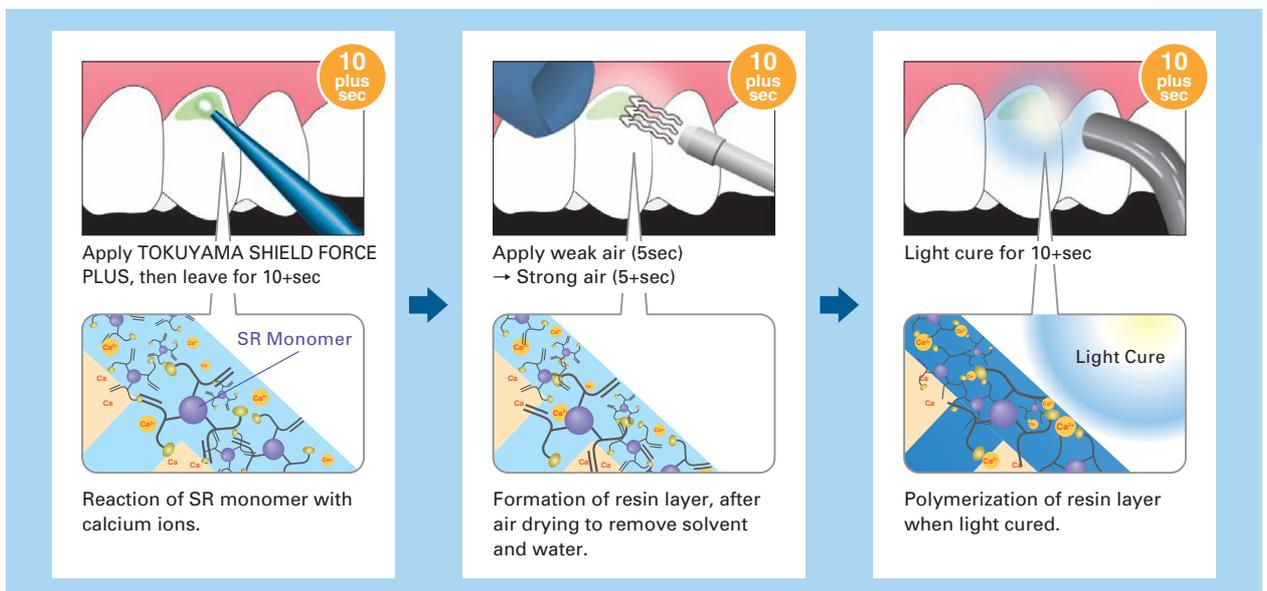
SEM image - Magx1000

\*\* 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

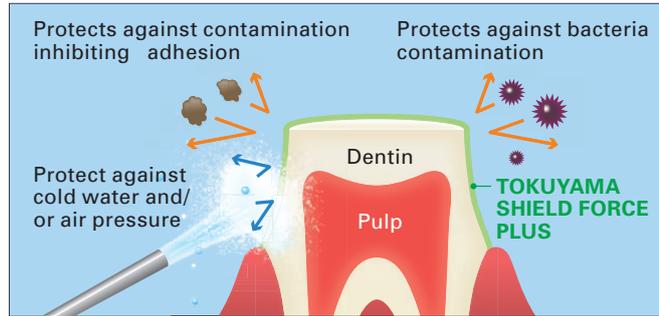
TOKUYAMA SHIELD FORCE PLUS reduces dentinal hypersensitivity immediately after applying, by utilizing Tokuyama's patented technology "Self Reinforcing Monomer (SR Monomer)" it interacts with the calcium ions sealing the dentinal tubules. The air drying step ensures the formation of a thin protective 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

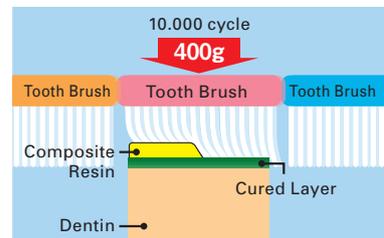
When used in clinical cases under direct/in-direct restorations, TOKUYAMA SHIELD FORCE PLUS will alleviate and/or prevent tooth sensitivity caused by cold water and air pressure during the preparation, simultaneously protecting the tooth from bacteria and unexpected contamination to the dentin. Thanks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



## Durable Coating Effect

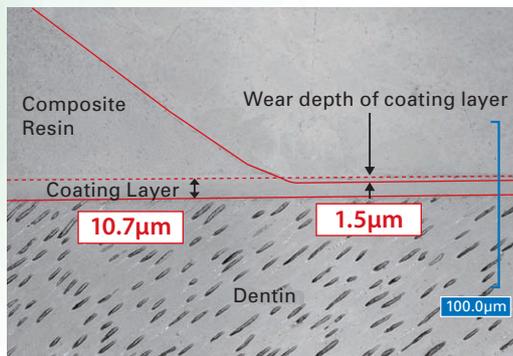
TOKUYAMA SHIELD FORCE PLUS is effective in reducing abrasion and/or erosion of exposed cervical dentin by creating a durable coating layer when light cured. Thanks to the Self Reinforcing Monomer it demonstrates significant durability against toothbrush abrasion regardless of the thin layer that is formed.

Toothbrush Abrasion Test

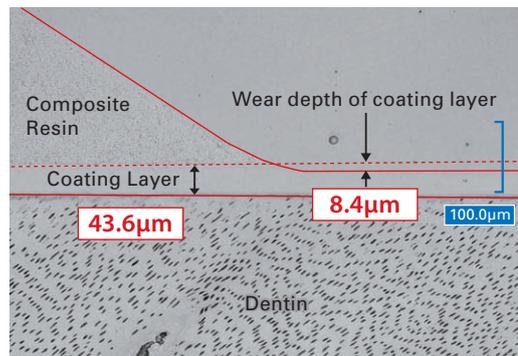


### Toothbrush Abrasion Test (10,000 cycles)\*\*

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

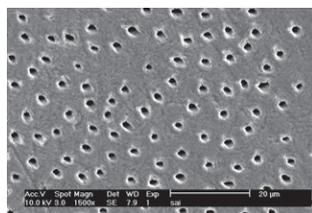


Seal & Protect®\*

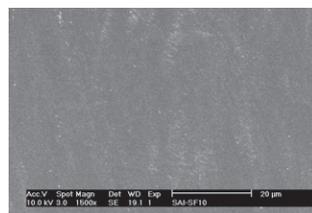
### Thermal Cycle Test (10,000 cycles) 4°C - 60°C\*\*

#### TOKUYAMA SHIELD FORCE PLUS

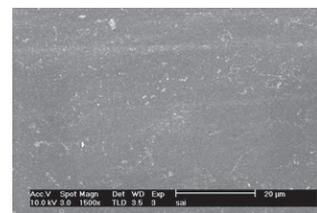
TOKUYAMA SHIELD FORCE PLUS layer remains over the dentin surface after the test.



Hypersensitive dentin model



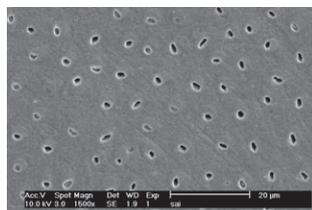
After TOKUYAMA SHIELD FORCE PLUS is applied



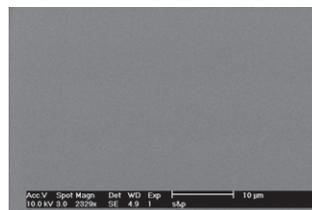
After Thermal Cycle test (10,000)

#### Seal & Protect®\*

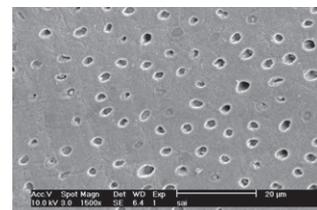
The layer of Seal & Protect®\* has washed out and exposed dentin surface was observed after the test.



Hypersensitive dentin model



After Seal & Protect®\* is applied



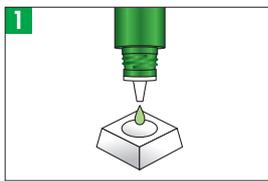
After Thermal Cycle test (10,000)

\*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.

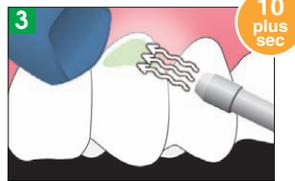
## 1 Treatment of dentinal hypersensitivity / Coating of exposed cervical dentin



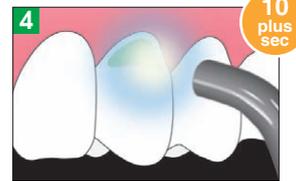
Dispense



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

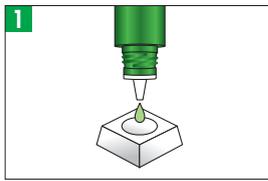


Apply weak air (5sec)  
→ Strong air (5+sec)

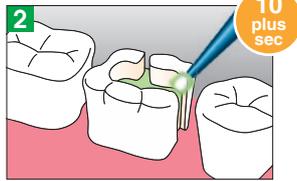


Light cure for 10+sec

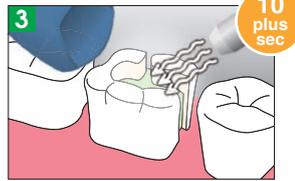
## 2 Sealing of prepared tooth to alleviate / prevent tooth sensitivity (Direct Restorations)



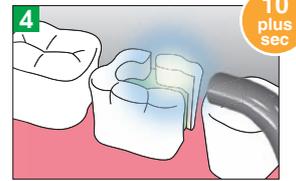
Dispense



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



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

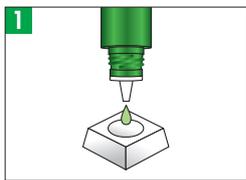


Light cure for 10+sec

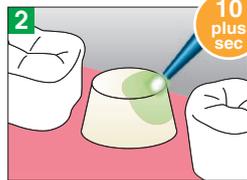


\* If using a total etch bonding system, **etchant must be applied "AFTER" TOKUYAMA SHIELD FORCE PLUS procedure.**

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



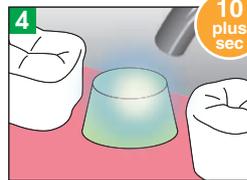
Dispense



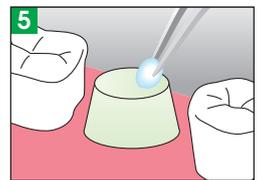
Apply TOKUYAMA SHIELD FORCE PLUS, then leave for 10+sec



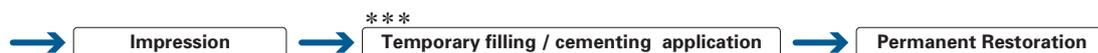
Apply weak air (5sec)  
→ Strong air (5+sec)



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

Manufactured by  
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