stae

single component total etch adhesive

Stae is a fluoride releasing single component dentin / enamel total etch adhesive system, designed for direct bonding. Stae completely and homogeneously infiltrates the hybrid layer to ensure superior bonding to the tooth.

One bottle system
Stae combines both primer and adhesive in one bottle to simplify the technique and decrease patient chair time.

Non Bis-phenol A
Stae avoids the Bis-phenol A hormonal imbalance controversy, as it does not contain the related BisGMA resin.

Bonds to moist and dry tooth surfaces
Stae's carrier solvent is a mixture of acetone and water. The acetone carries Stae deep into the demineralized dentin and the water re-moistens any dry dentin.

High bond strength
Stae's complete hybridization of the resin into the demineralized dentin results in high bond strength.

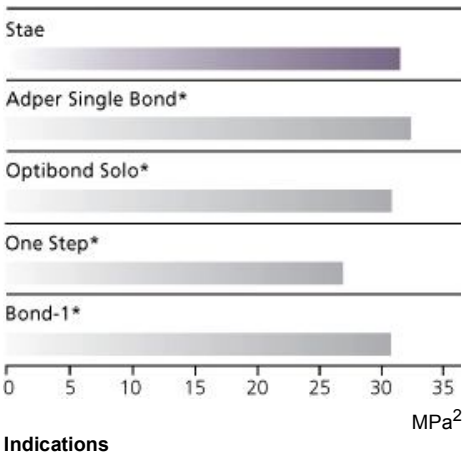
THE DENTAL ADVISOR ++++

The Dental Advisor
September 1998,
Vol. 15, No. 7.

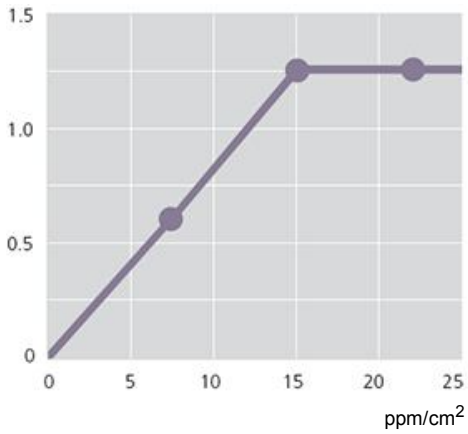
Dental Advisor rating
"Stae is a highly recommended adhesive system designed for composite, compomer, and porcelain bonding. It received an 86% rating." (1)

Fluoride release
Fluoride's cariostatic effect enhances remineralization and inhibits enamel demineralization. In an aqueous environ-ment, the fluoride ions in Stae diffuse from the resin into the surrounding tooth. This ionic movement is caused by oral fluid passing in and out of the resin and tooth, acting as a carrier for the fluoride ions.

bond strength [2]**



cumulative fluoride release **



Indications

- All direct restorative composites
- Compomers
- Composite / Ceramic+ / Metal+ / Porcelain+ Repairs

+ Bonding surface requires pre-treatment with a silane primer.

Complete and consistent hybridization

"SEM observations of the Stae adhesive system revealed hybridization at the dentin-resin interface. The hybrid layer appears well developed with a uniform thickness of around 3 to 4 microns." (2)
Stae's well infiltrated hybrid layer, compared to the other brands below, illustrates Stae's complete sealing of the dentinal tubules, minimizing post operative sensitivity. Evident in the photographs is Stae's "intimate adaptation of the interdiffused resin to the remaining sound tooth structure and uniform image density."

There are no gaps or voids visible within the hybrid layer. Such a characterization has previously been associated with adhesive systems with durable clinical success. A similar result was found with 3M Single Bond* adhesive system. With the Optibond Solo* adhesive, a less well defined hybrid layer resulted. Within the layer are areas void of resin interdiffusion. Further, the non-uniform image density suggests a lack of complete hybrid layer development." (3)

Stae	**Adper Single Bond** *	**Optibond Solo** *
Magn 5,000x	Magn 5,000x	Magn 5,000x
	No voids Stae's "hybrid layer is continuous with the residual dentin layer with no evidence of separation or voids." (2)	
SEM Magn 2,000x		
	Complete seal Stae's "hybrid layer is very uniform with no variation in staining which represents a uniform interdiffusion of adhesive resin into the demineralized layer. The collagen framework appears totally encapsulated with resin." (2)	
TEM Magn 2,000x		
	Intact collagen "Collagen fibrils within the hybrid layer show evidence of complete banding with no signs of denaturing or loss of structural integrity." (2)	
SEM Magn 10,000x		

instructions:

Clean and isolate tooth

1. Etch tooth surface with Super Etch 37% phosphoric acid for 20 seconds
2. Wash thoroughly
3. Remove excess water. Keep moist
4. Apply Stae to saturate all internal surfaces

5. Blow gently with dry, oil free air for 2 seconds to evaporate solvent. Leave surface glossy

6. Light cure for 10 seconds

7. Apply composite or compomer, such as Ice, Rok or Wave, according to the manufacturer's instructions

** Adper Single Bond, Optibond Solo, One Step and Bond-1are not the registered trademarks of SDI Limited.*
*** Source-Published and SDI test data.*

(1) The Dental Advisor. September 1998, Vol 15, No 7.
(2) Duke E. S., DDS, MSD, (1997). Ultrastructural and physical property studies of Stae single component adhesive system. The University of Texas Health Science Center, San Antonio, USA.
(3) Duke E. S., DDS, MSD, (1997). Research Report, The University of Texas Health Science Center at San Antonio.

For further information on Stae

- Re-Order Codes

CE 0510

LANGUAGE: English SEARCH: Go
Please direct all inquiries to SDI Limited | Report any problems to the Webmaster | Privacy policy | © 2009 SDI All rights reserved.