Super-Bond Porcelain Liner

Primer for Porcelain Bonding



Bonding porcelain veneers







* After treatment

with Super-Bond C&B. Porcelain Liner M is a silane coupling agent that chemically bonds to porcelain. It permits Super-Bond C&B to bond to porcelain surfaces that have not been acid-etched.

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The combination of Porcelain Liner M's strong, durable bond to porcelain and Super-Bond's

reliable bonding to porcelain

durable bond to porcelain and Super-Bond's superb bond to teeth and metal permits broad application:

- bonding porcelain inlays, onlays or crowns
- bonding orthodontic brackets to porcelain surface
- bonding porcelain veneers
- repairing fractured porcelain facing, etc.

Porcelain Liner M plus Super-Bond C&B ... for strong, durable bonds to porcelain

For more than a decade, Super-Bond C&B has proven an extraordinary adhesive for metals and tooth structure. And now, once the surface has been pretreated with Porcelain Liner M, Super-Bond C&B will even bond to unetched porcelain... creating strong bonds (20 MPa) that can survive 10.000 thermocycles.

Advantages:

Easy use:

- · eliminates acid-etching of porcelain surface
- takes just a few seconds to apply and
- can be used intraorally.

Superior bond to porcelain with Super-Bond C&B, as shown below:

Bond Strength between VITA Porcelain(ground with #600 Emery paper) and Stainless Steel

more amery puper, and examined exec.					
Thermal cycle (Times) (4°C-60°C)	Bond strength (MPa)				
	1,000	5,000	10,000		
Porcelain Liner M, Super-Bond C&B	20	19	13		
A bonding Agent for porcelain (Imported)	20	12	4		
Super-Bond C&B without Porcelain Liner M	8		_		

Note:Bonding of VITA(559)#600 to SUS304(Sandblasted)

Table2: Bond Strength between VITA Porcelain(glazed surface) and Stainless Steel

Thermal cycle (Times) (4 C-60 C)	Bond strength (MPa)			
	1,000	5,000	10,000	
Porcelain Liner M, Super-Bond C&B	20	19	9	
A Bonding Agent for Porcelain(Imported)	20	5	3	

Note:Bonding of the glazed surface of VITA(559) to SUS304(Sandblasted)

Table3: Bond Strength between Ceramic Bracket and Acrylic Block

Thermal cycle (Times) (4°C-60°C)	Bond strength (MPa)		
	1,000	5,000	10,000
Porcelain Liner M, Super-Bond C&B	20	11	10

Note:Tensile bond strength after completion of thermal cycles

Table 4: Effect of Heat Treatment Condition of Porcelain Liner M Coated Surface on Bond Strength

Heating condition	Treatment time (min.)	Bond strength (MPa)	
Not heat treated		13	
Heat treated with	1	19	
blower (120-130°C)	2	20	
Heat treated with	1	17	
hair dryer (70-80°C)	3	21	

Note:Bonding of VITA(559)#600 to SUS304(Sandblasted) after10,000 thermal cycles

Examples of Clinical Applications:

1 Bonding brackets to porcelain teeth



(a)Polish the porcelain tooth surface using a brush cone with paste. Rinse and dry.



(b)Apply mixed Porcelain Liner M (c)Brush Super-Bond C&B on a to the porcelain surface.



bracket surface.



(d)Place and press the bracket (e)Remove excess resin. to the tooth. Leave it to cure.





(f)Attach wire.

2 Repairing dislodged porcelain facings



(a)Fracture of porcelain facings.



(b)The porcelain surface should be cleaned with a solvent such as acetone, or if necessary, a thin layer of opaqued porcelain may be removed



(c)Apply mixed Porcelain Liner M to the surface and warm it with hot air. (See Table 4)



(d)Brush Super-Bond C&B on (e)Place and press the facing to (f)Complete repair. (Any missing the surface, (after pre-treatment of the precious metal surface with V-PRIMER.)



the teeth and remove the excess.



porcelain should be rebuilt with a composite resin.)

3 Repairing ceramometal crown





(a)Fractured incisal edge of (b)Apply mixed Porcelain Liner M, porcelain facing. then Super-Bond C&B on the fracture surface. Rebuild the missing part with a composite resin.