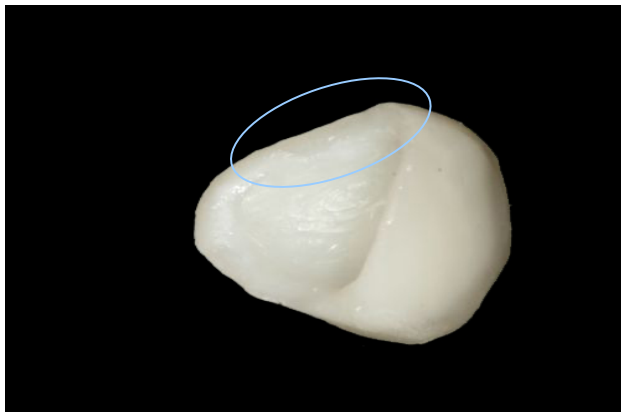


"Tack & Wave"
Cementation
Veneers and anterior crowns

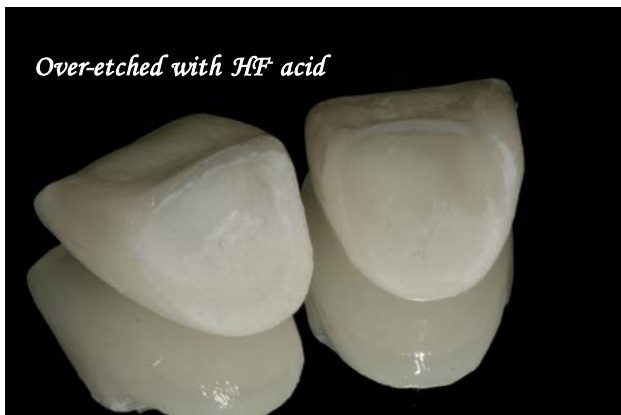




Etch Times with HF Acid

- ❖ *Empress: 1 minute*
- ❖ *E.Max: 20 seconds*
- ❖ *Feldspathic: 1 minute*

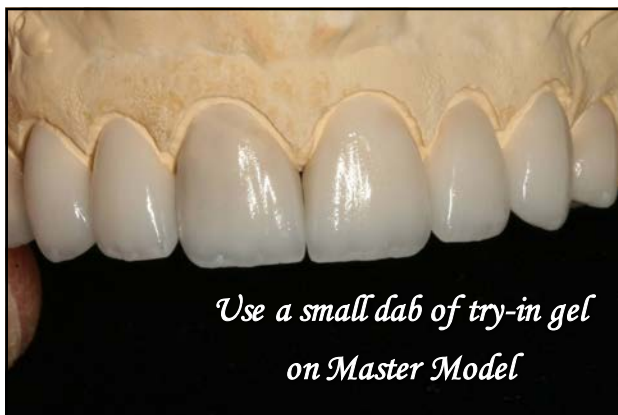
Over-etched with HF acid





If over-etched

- ❖ Apply H₃PO₄ and agitate aggressively
- ❖ Place in Ziploc bag with alcohol in ultrasonic for 1 minute
- ❖ Sandblast with 50 micron Aluminum Oxide



Use a small dab of try-in gel on Master Model

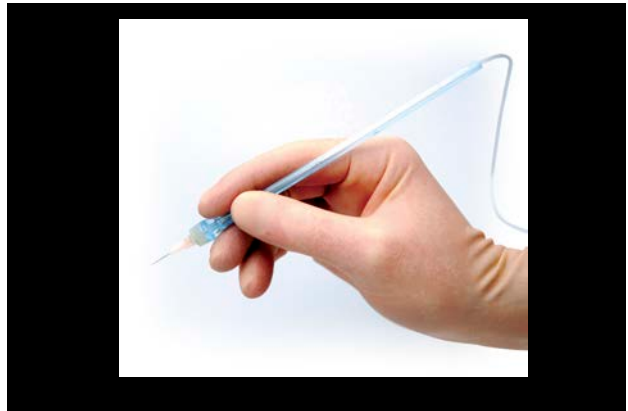
When the restorations are returned from the lab:

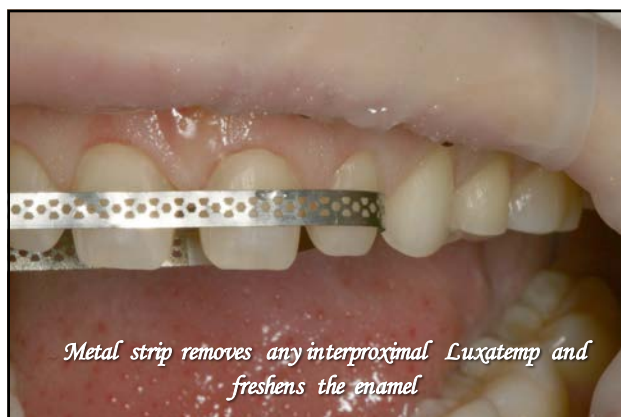
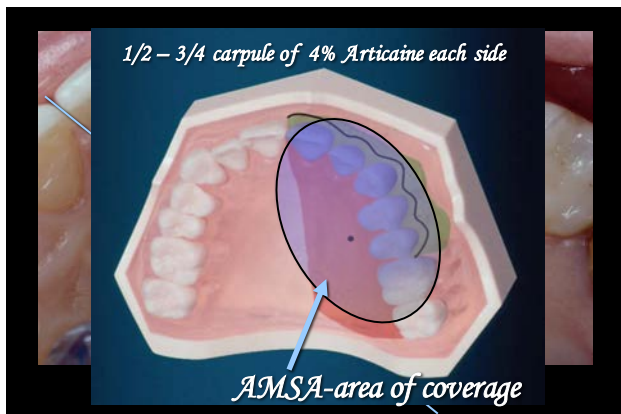
- ❖ Check internal for etch
- ❖ Check incisal edges for fractures
- ❖ Check fit on Master Model
- ❖ Check shade on prep die

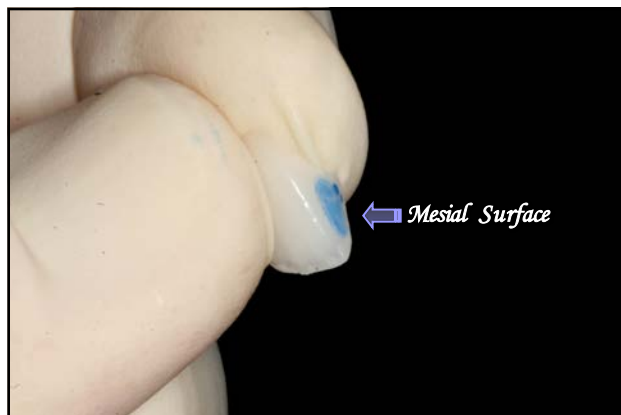
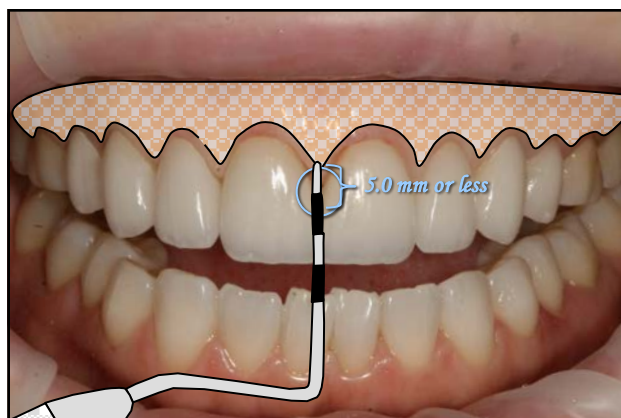


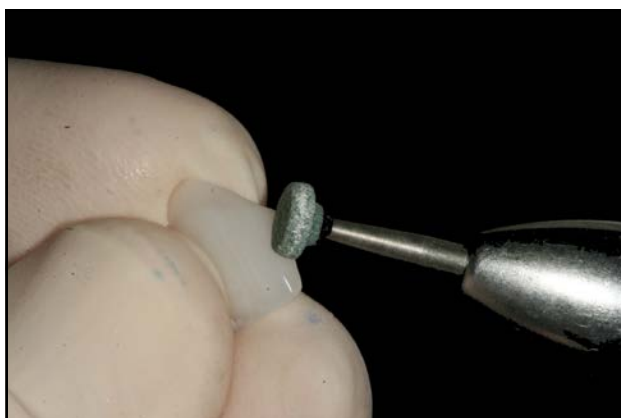
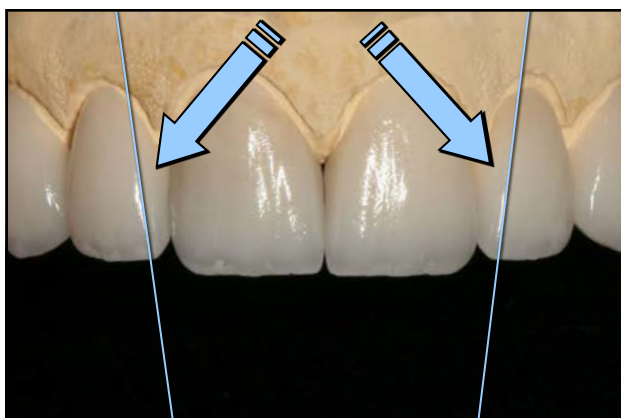
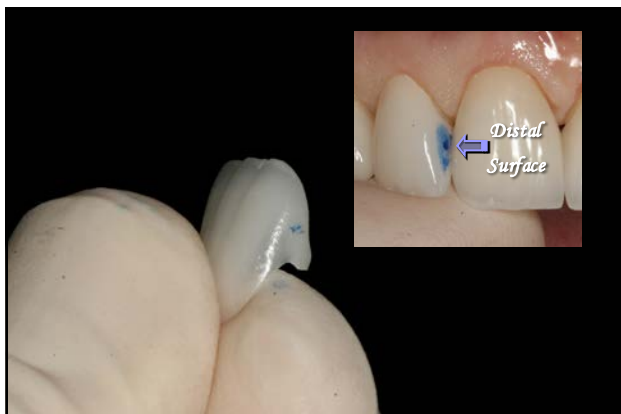
When the restorations are returned from the lab:

- ❖ Check internal for etch
- ❖ Check incisal edges for fractures
- ❖ Check fit on Master Model
- ❖ Check shade on prep die
- ❖ Check length of central incisors and compare to prescription





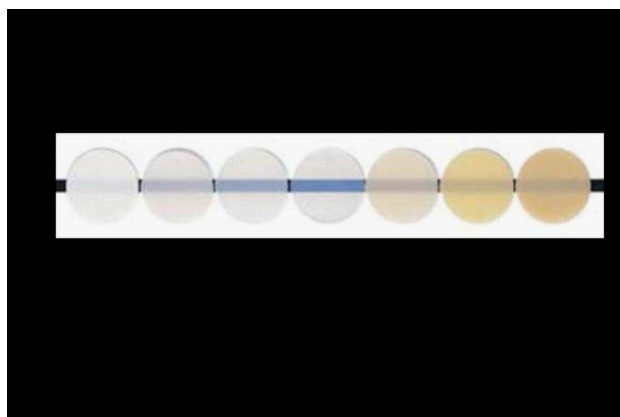


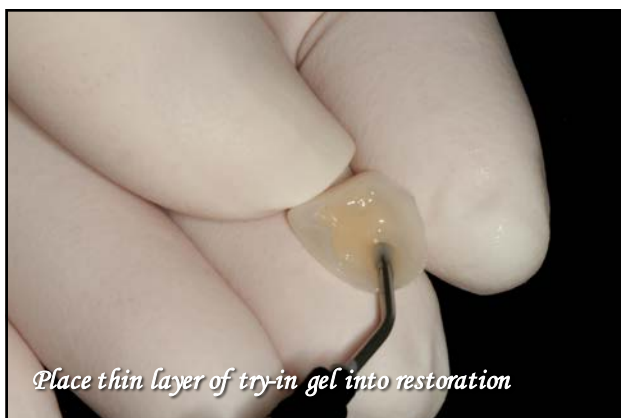
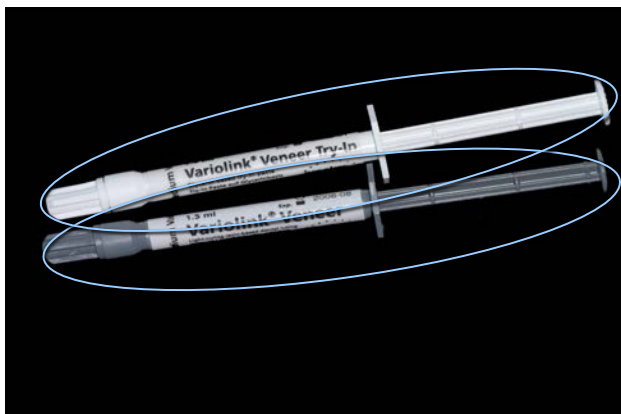




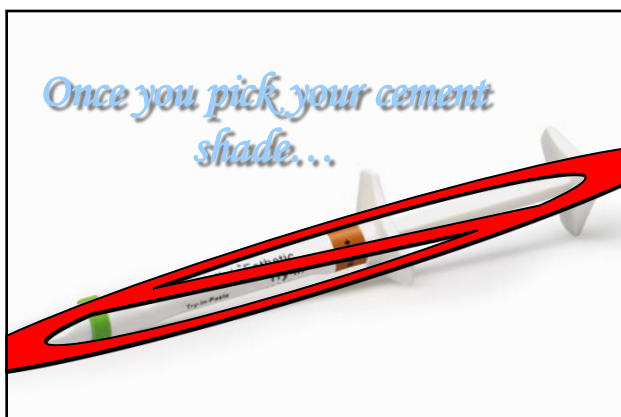
Variolink Veneer
 (Ivoclar Vivadent)

- ❖ Value based
- ❖ 0
- ❖ +1, +2, +3
- ❖ -1, -2, -3
- ❖ Microfill





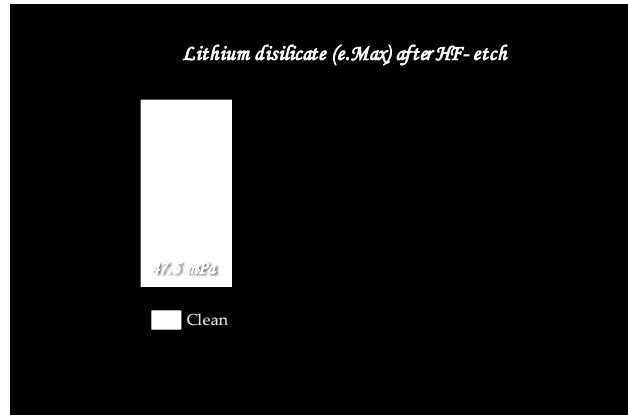
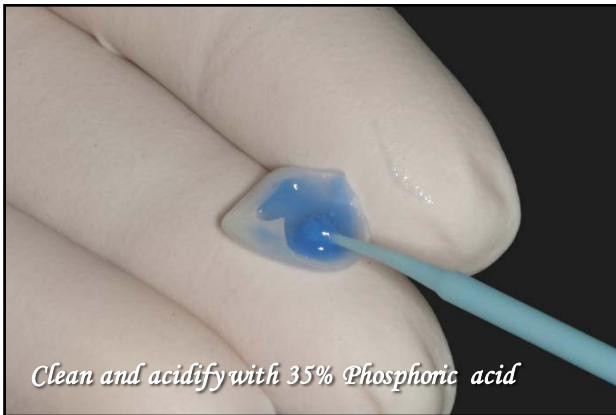


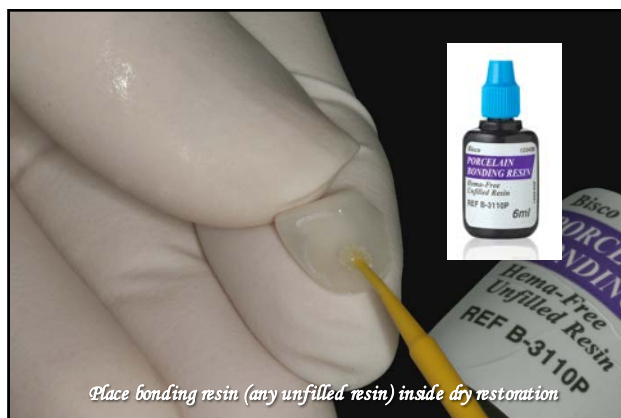


Look at the Forest....
...and then each tree!

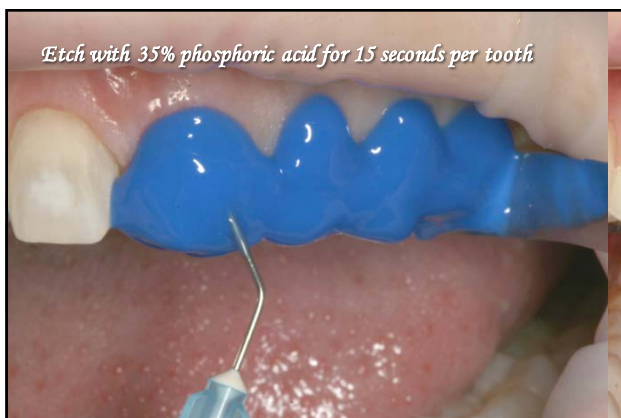
Generalities
(uniform thickness veneers)

- ❖ *Incisors: "0" or clear*
- ❖ *Canines: + 2 or milky white or higher value*
- ❖ *Premolars: Always -3 or warmer cement*









Effect of Remoistening
Water vs. Desensitizer/Rewetting Agent

Product Dentinal Bond

Water-blotted dry

Telio CS Desensitizer



Dentinal Adhesion

Restorative Resin

Resin Layer

Hybrid Zone



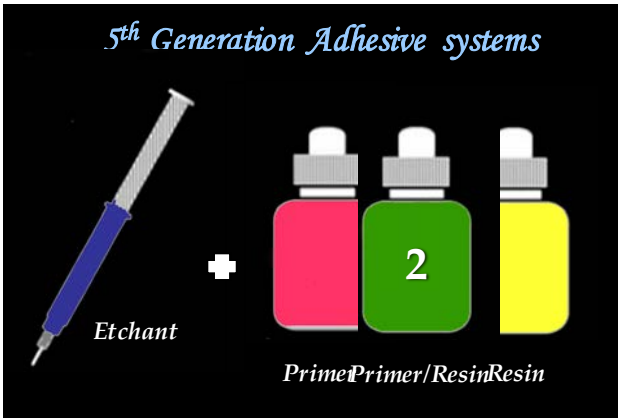
4th Generation Adhesive systems

Etchant



Applications of 4th Generation Adhesive Systems

- ❖ **Everything**
 - ❖ Direct
 - ❖ Indirect
 - ❖ Self-cure
 - ❖ Posts/cores
 - ❖ Sealing dentin in a dark environment



Applications of 5th Generation Adhesive Systems

- ❖ **Direct Restorations**
- ❖ **Indirect where it can be polymerized with light**
 - ❖ Veneers
 - ❖ Anterior all-ceramic crowns
 - ❖ Ceramic inlays/onlays

“Self-Etch”

6th Generation Adhesive Systems



Self-etch primer

Adhesive Resin



OptiBond XTR
(Kerr)



Prelude
(Danville)



Clearfil SE
(Kuraray)

Applications of 6th Generation Adhesive Systems

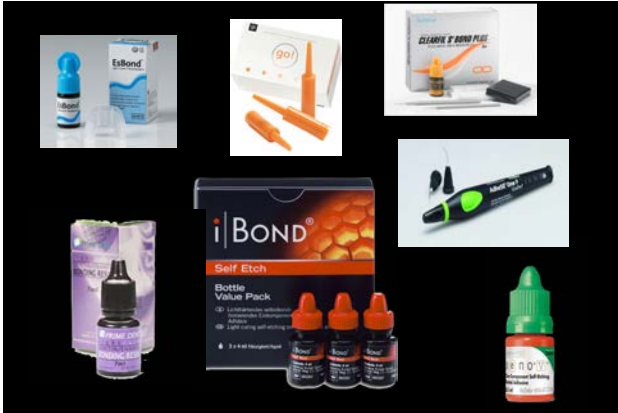
- ❖ *Direct Restorations*
- ❖ *Etch enamel with phosphoric acid, especially with Indirect*

7th Generation Adhesive Systems



Self-etch primer *All-in-one* *Adhesive resin*

Hydrophilic



There is a direct correlation between hydrophilicity of the resin and resin degradation

Tay, et al.

Tay (et al) similarly concluded that 1-layer Self-Etch adhesives are semi permeable membranes.

Water Trees

(Tay, Suh, Pashley, Cavalho; J Dent 2002; 30:371-382)

Applications of 7th Generation Adhesive Systems

- ❖ *Direct Restorations*
- ❖ *Etch enamel with phosphoric acid*

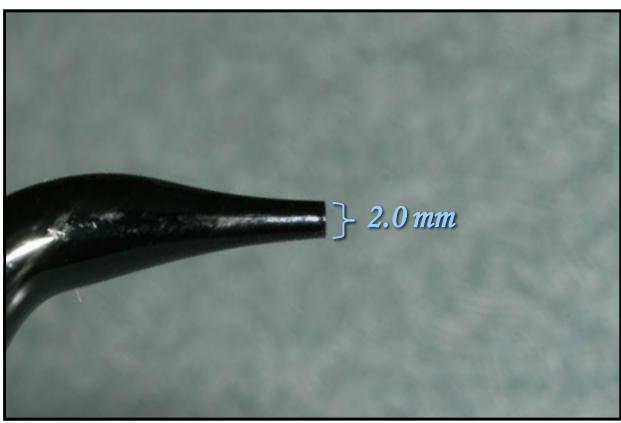
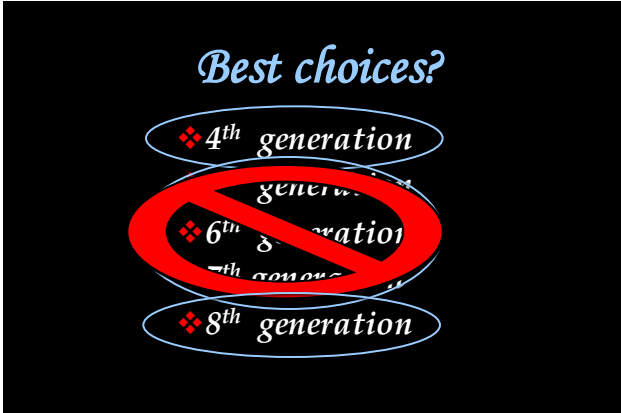
?

Universal Adhesives

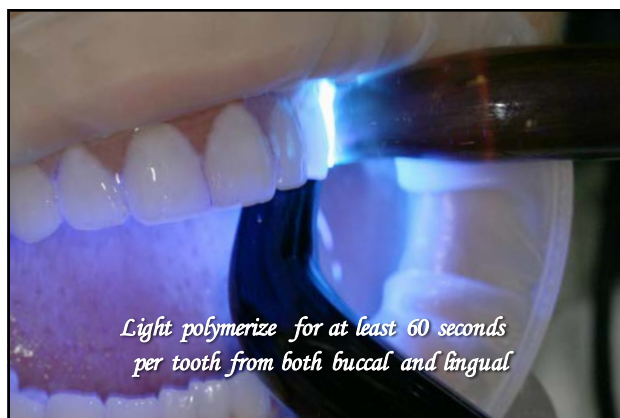
8th Generation adhesive systems

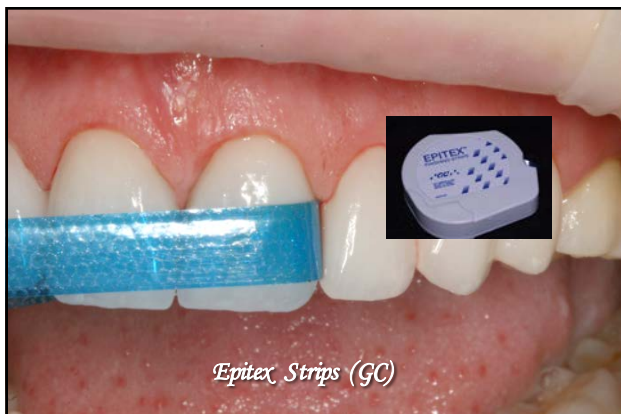


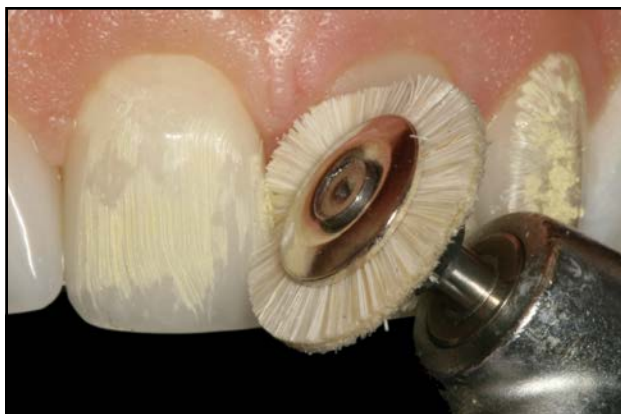
Hydrophobic











Porcelain polishing system (DiaShine)



DiaShine in Goat hair brush





Questions?