

CLASS IV AND DIRECT RESIN BONDING CONCEPT

Dr. Bud Mopper

MULTIFACETED WORLD OF

COMPOSITE DENTISTRY







MATERIAL SELECTION

LINGUAL WALL

<p>Micro-Hybrid</p> <ul style="list-style-type: none"> ➤ Large particle size ➤ Greater strength ➤ More opacity ➤ Excellent wetting properties ➤ Decreased polishability ➤ Does not maintain long-term polish ➤ Less wear-resistant ➤ More difficult to marginate ➤ Less refractive and reflective 	<p>Nanofill</p> <ul style="list-style-type: none"> ➤ Large particles surrounded by minute particles ➤ Better handling ➤ Similar strength ➤ Increased polishability ➤ Decreased shrinkage ➤ Easier to marginate ➤ More stain & plaque resistant ➤ More biologically compatible ➤ Has an "opacious" translucent quality
---	---



CLASS IV RESTORATION



Should produce opacity, while color blending at the same time
Block light transmission and excessive translucency
Increase value
Used to mask dark areas
Used to mask metal
Should be used sparingly
Help to create invisibility

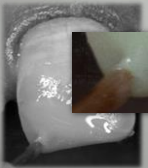
Opagues

CLASS IV RESTORATION



Opagues

CLASS IV RESTORATION



Opagues

CLASS IV RESTORATION



Opagues

MATERIAL SELECTION

ENAMEL LAYER

MATERIAL SELECTION

ENAMEL LAYER

Nanofill

- Larger particles surrounded by minute particles
- Better handling
- Similar strength
- Increased polishability
- Decreased shrinkage
- Easier to marginate
- More stain & plaque resistant
- More biologically compatible
- Has an 'opaque' translucent quality

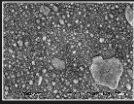
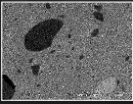
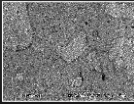
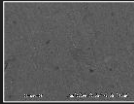
Microfill

- Small and uniform particle size
- Superior handling
- Increased polishability
- Maintains polish long-term
- Easier to marginate
- More stain & plaque resistant
- More biologically compatible
- Better wear-resistance
- Better refractive & reflective index
- More realistic translucency

MATERIAL SELECTION

ENAMEL LAYER

SEM Materials Comparison (Polished Surface x1000)

Filtek Supreme Plus 3M ESPE Cosmesdent Renamel Nano Kerr Premise Cosmesdent Renamel Microfill

Study compiled by Dr. Ana Bedran-Russo, DDS, PhD, College of Dentistry (February 18, 2009)





CLASS IV RESTORATION

ENAMEL LAYER – RENAMEL MICROFILL




CLASS IV RESTORATION

F & FINISHING




CLASS IV RESTORATION

F & FINISHING




CLASS IV RESTORATION

F & FINISHING




CLASS IV RESTORATION

F & FINISHING



