

Clark Class II Restoration for the 'saucer preparation'

This method produces a seamless, strong, durable, and leak resistant composite filling
The prepared cavity is restored using the following steps:

1. **"Pre-wedge" the teeth to be restored.** Cut a Saucer style class 2 preparation as outlined in the "Clark Class 2 /Injection Molded Composite Technique". For smaller and first time caries, a new original fissurotomy bur is ideal. The final saucer shape with infinity edge margins can be nicely *ground in* with a needle diamond bur. **Make sure to "pre-wedge" the teeth to be restored. Cut the wooden wedge as you cut the tooth. The Clark Class II will be predictable and enjoyable only after this preparatory step is performed.** There must be slight clearance between teeth when finished with the preparations.
2. Remove wedge
3. The Interproximal should be aggressively "sanded" with a lightning strip then and cleaned with pumice and rubber cup, and even followed with sodium bicarbonate spray (*Prophy Plus* by Bioclear Matrix System).
4. Place the appropriate **Bioclear anatomical sectional matrix band** around the tooth maintaining anatomic crown and root adaptation. Wetting the matrix with a drop of water before placement seems to make it much easier to work with.
5. Stretch the appropriate **Interproximator**. It can be applied with finger tips, with delicate hemostats, or with the Bioclear **Interproximator Forcep**. Alternatively, a **Bioclear Sabre Wedge** can be advantageous for posteriors or deep caries.
6. Use of a metallic bi-tine separator ring in interproximal embrasure is needed when the matrix does not easily touch the neighboring tooth. Typically contacts are very snug without an additional separator. However, when needed you may place one and the separators such as the Triodent or Garrison are placed *on top* of the **Interproximator** or **Sabre Wedge**. The Triodent ring is more compatible with the Bioclear matrix than is the Garrison separator and has a better spring. It will create additional tooth separation and additional adaptation pressure on matrix.
7. Etch with liquid etch and immediately chase it with gel phosphoric acid, 2mm past margins, then rinse and dry. (If you prefer to cover the dentin with glass ionomer, then do so before applying etchants and skip step 8 and 9.)
8. Cover dentin with two coats of bonding resin and individually air thinned and light cured.
9. Flowable composite can then be placed to "base up" the axial wall depending on personal preference, with the goal being that there will be 2mm or less axial thickness when performing the injection molding step.
10. Place lightly filled bonding resin covering entire cavity preparation and 2 mm past margins. Air thin the resin except in gingival where a small pool is maintained. Do not light cure at this point.
11. Inject flowable composite directly into the pool of bonding resin (under magnification if possible) without incorporating bubbles. Express a tiny amount of the flowable before placement to ensure that there is no air in the canula. Do not light cure yet.

12. Inject paste composite into the pool of flowable composite without creating air bubbles, allowing the paste to displace most of the lesser filled resins (under magnification if possible). Apply injection pressure as you pull the syringe away to avoid “pull-back” and voids
13. Burnish, carve anatomy and carve excess composite. Never use a condenser or plugger.
14. Cure occlusal surface, then cure interproximal with two curing lights (if available), one from buccal and one from lingual while applying air cooling from air syringe, using high intensity LED or ARC curing lights.
15. Remove bi-tine ring or other type separators and repeat interproximal light curing using two lights (if available). If the teeth are very broad or the preparation is large and/or deep, an additional interproximal cure is advisable after removing the wedge or **Interproximator**
16. Remove matrix and polish with discs, strips, and rubber tipped and carbide burs.
17. Remember that composite will absorb water and swell slightly over the next 24 hours, so make sure that occlusal contacts on the composite are very light.

a. Sycamore Wood “Pre- Wedge”	Premier
b. Original Fissurotomy bur	SS White
NTF Fissurotomy bur	SS White
Red Flame 848F	Shofu
Piranha bur.....	SS White
Green Flame 852C.....	Shofu
c. Vitrebond	3M ESPE
d. Fuji IX	GC America
e. Lightening Strips	Miltex
f. Pumice Course.....	Henry Schein
g. Prophy Plus	Bioclear Matrix
h. Cavitron Jet Fresh Powder (Aluminum Tri-hydroxide)	Dentsply
i. Bioclear Matrix/Wedge/Interproximator	Bioclear Matrix
j. Liquid Soap	Bioclear Matrix
k. V3 Seperator	Triodent
l. Liquid Etch.....	3M ESPE
m. Gel Etch (Total Etch).....	Ivoclar Vivadent
n. Optibond Solo Plus	Kerr
o. Filtek Flowable Composite	3M ESPE
p. Filtek Supreme Ultra Composite	3M ESPE
q. LED Turbo Curing Light (3 Second).....	Bioclear Matrix
r. Sof-Lex disc	3M ESPE
s. Sof-Lex strips	3M ESPE
t. Brownie Point	Shofu
u. Jazz Composite Polisher.....	SS White
v. Caries Detector	Kuraray Medical
w. 2Tone Disclosing	Young Dental
x. Rubber Dam (Heavy – Blue)	Hygenic
y. Contact lightener with red handle “Quik Strip”	Axis Dental axisdental.com
z. Contact “saw” safe side with white handle	Axis Denatl axisdental.com