

5

carrier must be high-strength, that is, capable of withstanding the forces placed on the carrier by the dentist or technician while in use. Composite is loaded into hollow tip **12** of carrier **10** by pressing tip **12** directly into the composite without dragging or sliding tip **12** over the surface of the composite. The composite is ejected into the cavity by pressing plunger **14**.

The composite is then packed into the cavity using, e.g., the amalgam packer **22** and carver **24** shown generally as plugger **20** in FIG. 2. Suitable amalgam pluggers are known in the art, and available in a variety of forms. The application of force to the condensable composite in the presence of the flowable composite during packing results in microscopic adaptation of the filling to the tooth cavity, and thus enhanced bonding in the final restoration. After the cavity is filled, occlusal form is created by pushing the carver portion **24** of amalgam plugger **20**. After the final form is achieved, the restoration is cured by suitable means.

A preferred condensable composite for use in the present method is available under the trademark ALERT from Jeneric/Pentron, Inc, Wallingford, Conn. Complete cure of ALERT by visible light to a 5 mm depth is achieved within about 40 seconds. Interproximal areas may be cured for an additional twenty seconds each. Where the preparation exceeds a depth of about 5.0 mm, an initial increment of condensable composite is placed, packed and light cured. A coat of a primer, primer/adhesive, or adhesive is then applied to the cured restoration, air dried as before, and light cured. A final increment of condensable composite is then placed and packed into the cavity, occlusal form is created, and the restoration cured.

Finally, the restoration is polished using conventional polishing materials and techniques, such as disks, composite polishing pastes, and polish-impregnated wheels and cups, and the like. Optionally, the surface of the restoration may be sealed to increase wear resistance and ensure the marginal integrity of the restoration. A suitable sealant is available under the trademark PROTECT-IT from Jeneric/Pentron, Inc., Wallingford, Conn. Application of this sealant requires first etching with an etchant such as phosphoric acid out to about 2 mm of enamel adjacent the restoration margin for about twenty seconds. The etchant is then removed by thorough washing. Sealant is then applied over the entire restoration surface, thinned using a jet of air, and cured. Subsequent polishing is usually not necessary.

The kit of the present invention comprises at least a condensable composite and a nonmetal-surfaced amalgam carrier such as that shown in FIG. 1. Amalgam carriers are well-known in the art, and other types of amalgam carrier may be suitable for use in the practice of the present invention. As mentioned above, use of metal or metal-surfaced carriers may result in discoloration of the condensable composite, and so their use is preferably avoided.

The condensable composite is preferably provided in premeasured amounts similarly to amalgam, that is, in amounts of one spill, two spills, or three spills. A container suitable for providing the premeasured amounts of condensable composite is shown in FIGS. 3 and 4. Container **30** generally comprises a plurality of tabs **32, 34, 36, 38, 40, 42** each tab having a holder portion **44** and a depression portion **46**. Holder portion **44** optionally has an essentially square ridge portion **48** to aid the user in gripping and holding the tab, as illustrated in FIGS. 3 and 4. This optional ridge portion **48** may take the form of any shape to provide increased gripping capability. Depression portion **46** is sized so as to contain one spill, two spills, or three spills of

6

condensable composite. Each tab **32, 34, 36, 38, 40, 42** is preferably detachably adhered to at least one additional tab, such that the tab is conveniently removed by the dentist or technician upon use. As shown in FIG. 3, for example, tab **32** is detachably adhered to tab **34** by score **50** extending longitudinally between tabs **32, 34**. Each tab **32, 34, 36, 38, 40, 42** further comprises a removable cover made of foil or other flexible material to protect the composite during shipping and storage (not shown).

In another embodiment, the kit further comprises a flowable composite material, and in still another embodiment, the kit further comprises a flowable composite material and dispenser such as a syringe or compule, and at least one or all of an etchant, a primer/adhesive, a sealant, an amalgam plugger/carver, and brush tips. The elements of the kit are used as described above in connection with the method of the present invention. The kit is especially useful in forming posterior dental restorations that are aesthetic, strongly-bonded, and wear-resistant.

While preferred embodiments have been shown and described, various modifications and substitutions may be made thereto without departing from the spirit and scope of the invention. Accordingly, it is to be understood that the present invention has been described by way of illustrations and not limitation.

What is claimed is:

1. A kit for forming a dental restoration from a condensable composite composition, comprising
 - condensable composite; and
 - an amalgam carrier.
2. The kit of claim 1, wherein
 - the condensable composite is packaged in at least one container comprising at least one premeasured quantity of the condensable composite.
3. The kit of claim 2, wherein
 - the at least one premeasured quantity is one spill, two spill, or three spill, or a combination thereof.
4. The kit of claim 2, wherein
 - the at least one container comprises at least one tab having a holder portion adjacent a depression portion, the depression portion holding a premeasured quantity of the condensable composite.
5. The kit of claim 4, wherein
 - the holder portion has an essentially square ridge portion to aid in gripping the holder portion.
6. The kit of claim 2, wherein
 - the at least one container comprises a plurality of tabs, wherein each tab is detachably connected to at least one adjacent tab.
7. The kit of claim 1, further comprising
 - a flowable composite composition.
8. The kit of claim 1, further comprising
 - at least one dispenser for dispensing the flowable composite.
9. The kit of claim 1, further comprising
 - an amalgam plugger having a packing portion.
10. The kit of claim 1, further comprising
 - an etchant.
11. The kit of claim 1, further comprising
 - at least one brush.
12. The kit of claim 1, further comprising
 - a primer, a primer/adhesive, an adhesive, or a combination thereof.