

**Made in USA**

**Technical Bulletin**

**Instructions**

**ACCLAIM-I**

**Self-Cure Composite Restorative Paste/Paste Type with Bonding Agent**

**Suitable for:** Class III, IV, and V Restorations of Anterior teeth and limited use in Class I restorations for Posterior

**CONTENTS:**

Restorative, Part A Universal Shade - 14g

Restorative, Part B - 14g

Self-Cure Bonding Agent, Part A - 5g

Self-Cure Bonding Agent, Part B - 5g

Enamel Conditioner -12g

Instructions and Accessories

**OUTSTANDING FEATURES OF THE MATERIAL**

- High filler content
- High mechanical strength
- High wear resistance
- Long shelf life
- Excellent marginal adaptation
- Low shrinkage
- Low pulp irritation potential
- Excellent X-Ray Opacity
- Good polishability
- Resistance to staining
- Excellent aesthetics
- Bonds to enamel

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## GENERAL INFORMATION

Among the different forms of self-cured composite restorative materials, the paste/paste type is the most popular, because of its ease of handling and uniformity of mix consistencies. Acclaim-I utilize micro fine colloidal inorganic filler particles that produces a smooth polished surface finish, thereby it is rendered ideal for esthetic restorations of anterior teeth. It is recommended for use in Class III, IV and V restorations of anterior teeth and limited use in Class I restorations for posterior. The Bonding Agent included in the kit contributes to improved marginal adaptation by bonding to conditioned (etched) enamel. It also allows so-called “adhesive restorations”; for example, Class IV incisal edge restoration, where retention is based on bonding to etched enamel.

### Composition Specification

### Percent Mass

#### Part B Paste

Blend of silicates	75 - 85
Bis-GMA	10 - 20%
Triethylene Glycol DIMA	1 - 5%
Initiator	<1%

#### Part A Paste

Blend of Barium, Aluminum and Boro Silicates	75 - 85%
Bis-GMA	5 - 15%
Co monomers and diluents	<10%
Accelerator	<5%
Colorants	<1%

### Physical / Mechanical Properties

Working Time	2 minutes
Setting Time	2.5 minutes
Compressive Strength	230 MPa
Diametral Tensile Strength	45 MPa
Flexural Strength	110 MPa
Water absorption	<10- $\mu\text{g}/\text{mm}^3$
Water Solubility	<2- $\mu\text{g}/\text{mm}^3$
X-Ray Opacity	Excellent

## CLINICAL PROCEDURES

Cavities are prepared in the conventional manner. In deep restorations, the use of calcium hydroxide base is recommended. Best marginal adaptation is achieved by etching the enamel surrounding the cavity and applying bonding agent prior to inserting the restorative paste.

## **SPECIAL RECOMMENDATIONS**

**Class I.** Slightly overfill the cavity. Place plastic strip over the restorations and instruct the patient to bite down for one minute. Remove excess restorative and trim the flash. The restoration will be ready to finish four minutes after inserting the paste into the cavity.

**Class III.** The use of a plastic strip is recommended for interproximal separation and as a matrix. Compress the restorative in the cavity with the strip. Hold the strip until the restorative sets. Trim and finish after four minutes.

**Class IV.** Incisal edge restorations may be prepared with or without the use of crown forms. The use of bonding agent over etched enamel is a necessary step in this kind of restoration. To provide adequate bonding strength, a relatively large area of enamel should be etched and primed with bonding agent. For this reason butt joints are generally not recommended. Greatly improved retention is achieved by extending the bonding area 2-3 mm around the fracture. Retention may also be increased by beveling or tapering the adjacent enamel, or by making small undercuts on the lingual side of the tooth. In some situations the use of pins placed in the dentin may be necessary. The use of crown forms is especially recommended in larger restorations. The crown form should be removed no sooner than six minutes after it is sealed.

A typical **Class IV** restoration procedure consists of the following steps:

1. Prophylaxis of the tooth (or teeth) to be restored followed, if necessary, by operational preparation of the enamel for better crown form acceptance.
2. Prefitting of the crown form.
3. Application of enamel conditioner to the area to be bonded, followed by washing and drying.
4. Preparation of the bonding agent mix and application to the etched enamel.
5. Preparing the restorative mix and filling the crown form.
6. Seating the crown form on the tooth.
7. After at least six minutes, cutting and removing crown form.
8. Finishing.

**Class V.** After conventional cavity preparation, fill the cavity with the restorative paste and place the cervical matrix. After three minutes, remove the matrix. Trim and finish after four minutes.

## **MIXING AND APPLICATION INSTRUCTIONS**

**Enamel Conditioner.** Apply enamel conditioner to enamel and wait from 20 seconds to up to 2 minutes. Rinse conditioner and evacuate. Dry with oil-free air or with any commercial dental drying agent.

**CAUTION:** Avoid contact with soft tissue or dentin. If accidental spill occurs, wash immediately.

After drying, the properly conditioned (etched) area should have a chalky-white appearance. Highly mineralized teeth may require an additional two-minute etching to obtain this effect.

**Bonding Agent.** Dispense an equal number of drops of Part A and Part B liquids into a mixing well. Mix for five seconds with a disposable brush and apply a thin layer over the dry, etched enamel. After 90 seconds, the material will set, leaving a very thin film of uncured liquid on the surface that will provide better adhesion to the restorative applied thereafter.

**Restorative Material.** Using opposite ends of a disposable spatula, dispense on a mixing pad equal amount of Part A and Part B pastes. Spatulate for 20 seconds to obtain a mix of uniform color. Place the restorative with the spatula or with a composite syringe. The mixed pastes have a working time up to 120 seconds at 73° F (23° C). If longer working time is desired, mix the material when cold. For example, mix the pastes shortly after removal from the refrigerator, or mix on a cold mixing slab.

## **FINISHING**

Excess material should be removed with either a superfine diamond or extra, fine sandpaper discs. Filling can then be polished with the use of aluminum oxide discs or paste.

## **STORAGE**

Dent Zar's Acclaim-I Chemical Cure Composite may be kept at room temperature. Cool storage lengthens shelf-life.

## **PRECAUTIONS AND WARNINGS**

- Acclaim-I is formulated to be used at room temperature. Shelf-life is at least 2 years when handled properly. Kits can be refrigerated to extend shelf-life.
- Avoid contact of etchant with soft tissue and dentin. Wash immediately if accidental spill occurs.
- Do not store material in proximity to eugenol-containing products.
- Do not expose material to elevated temperature or intense light.
- Do not use a metal spatula for mixing the composite pastes.
- Keep the composite jars covered when not in use.

Revision #2. Revised on 1-5-15

## MATERIAL SAFETY DATA SHEET

### SECTION 1. Chemical Product and Company Identification

**COMMON NAME:** Acclaim I Paste/Paste Composite Restorative

**DATE REVISED:** September, 2011

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### SECTION 2. Hazards Identification/Ingredients

<b>Hazardous Ingredients:</b>	None listed
<b>Potential Acute Health Effects:</b>	None known
<b>Potential Chronic Health Effects:</b>	None known
<b>Signs and Symptoms of Exposure:</b>	None known
<b>Medical Conditions Generally Aggravated by Exposure:</b>	None known
<b>Carcinogen or Potential Carcinogen Effects:</b>	None

### SECTION 3. Physical and Chemical Properties

<b>Boiling Point:</b>	NDA
<b>Melting Point:</b>	NDA
<b>Specific Gravity (H<sub>2</sub>O=1):</b>	ca 2.0
<b>Vapor Pressure (mm Hg):</b>	Negligible at ambient temperatures.
<b>Vapor Density (Air=1):</b>	NDA
<b>Solubility in Water:</b>	Virtually insoluble
<b>Reactivity in Water:</b>	None
<b>Appearance:</b>	Paste
<b>Odor:</b>	Slight odor

### SECTION 4. Fire and Explosion Data

<b>Flash Point:</b>	NDA
<b>Method Used:</b>	NDA
<b>Flammable Limits in Air % by Volume:</b>	NDA
<b>Auto-Ignition Temperature:</b>	NDA
<b>Extinguisher Media:</b>	NDA
<b>Special Fire Fighting Procedures:</b>	NDA
<b>Unusual Fire &amp; Explosion Hazards:</b>	None

### SECTION 5. Stability and Reactivity Data

**Stability:** Unstable

**Conditions of Instability:** Avoid exposure to elevated temperatures and high intensity light.

**Incompatibility with various substances:** None.

**Hazardous Decomposition Products:** None.

**Hazardous Polymerization:** No physical hazard.

**Conditions to Avoid:** Avoid exposure to elevated temperatures and high intensity light.

**SECTION 6. First Aid Measures**

**Inhalation:** NDA

**Eye Contact:** Flush with copious amounts of water.

**Skin Contact:** Wash with water and soap.

**Ingestion:** Induce vomiting.

**SECTION 7. Accidental Release Measures**

**Small Spill:** Collect to plastic or metal containers and dispose in accordance to local, state and federal law.

**Large Spill:** See above

**SECTION 8. Handling and Storage**

**Precautions:** Avoid exposure to moisture and light.

**Storage:** Avoid prolonged exposure to temperatures above 75°F and light.

**SECTION 9. Exposure Controls/Personal Protection**

**Respiratory Protection:** None required.

**Ventilation:** None required.

**Protective Gloves:** Recommended.

**Eye Protection:** Not required under normal handling.

**Other Protective Clothing or Equipment:** Not required under normal handling.

**Work/Hygienic Practices:** Avoid contact with skin. If it occurs, wash with soap and water.

