Geristore

Multi-Purpose Resin-Ionomer
What is Geristore?

- Geristore is a dual-cure, self-adhesive, resin glass ionomer formula that contains fluoride and has over seventeen uses.
- It is hydrophilic, so it will bond in the presence of moisture and blood, to all 5 surfaces plus the gingiva.
- Geristore is biocompatible for soft tissue and teeth.
  - Studies show gingival cell re-attachment to the material, making it excellent for sub-gingival procedures.
- It is available in a dual-cartridge auto-mixing syringe, making it quick and easy to use.
- Auto-mix and intra-oral tips are available.
Advantages of Geristore

• Multi-purpose glass ionomer Bis-GMA composite base for class III & V restorations
  – Versatile applications reduce inventory
• Can be used as a base because it has fluoride releasing capabilities
• Adheres to dentin and cementum
• Seals and bonds to amalgam
• Excellent for subgingival restorations
  – Biocompatible with connective tissue
• Self-adhesive properties make Geristore exceptionally easy to use with no need for retentive cavity design, eliminating chair time usually devoted to cavity preparation
• Resistant to marginal leakage and abrasion
Multiple Applications

- Class V’s or other low abrasive areas
- Base or liner for crowns, bridges, amalgams, composites, porcelain, bonded inlays, onlays, or heat cured composites
- Cementation of cast crown or bridge
- Intermediate filling material for deciduous teeth
- Cementation of gold inlays/onlays
- Placement of bonded amalgams
- PFM repair
- Cementation of orthodontic bands and brackets
- Cementation of Maryland Bridges
- Esthetic temporary for broken cusps
- Endo-perforations
- Endo-retro-fillings
- Cracked teeth

- Cementation of stainless steel crowns (metal)
- Cementation of heat-cured composites
- Amalgam margin repair
- Subgingival restorations; fractured roots, deep carious lesions, root resorption lesions
- Retrograde fillings and root perforations
- Restoring and sealing overdenture abutments
- Pulp capping for mechanical pulp exposure
- Furcations
Geristore

• Literally the SWISS ARMY knife for dental offices
• Most biocompatible, bondable material ever
• Can even fix the kitchen sink with this stuff!
<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Hybrid ionomer composite</td>
<td>Combines best properties of both types of materials</td>
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<tr>
<td>Self-adhesive</td>
<td>No need for retentive cavity design. Save chairtime.</td>
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<tr>
<td>Syringe delivery system</td>
<td>Easy to dispense. No hand mixing</td>
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<td>Low polymerization shrinkage, low coefficient of thermal expansion</td>
<td>Provides excellent marginal integrity</td>
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<tr>
<td>Resistant to marginal leakage &amp; abrasion</td>
<td>Longer lasting, durable restorations</td>
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<td>Contains fluoride</td>
<td>Long-term fluoride release</td>
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<td>Bonds to ALL surfaces</td>
<td>Eliminates the need for multiple products</td>
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<tr>
<td>Biocompatible</td>
<td>Years of clinically proven safety, especially subgingivally</td>
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<tr>
<td>Radiopaque</td>
<td>Highly distinguishable from tooth structure in radiographs</td>
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<tr>
<td>Available in 4 Vita shades</td>
<td>Matching tooth structure is easy</td>
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Geristore Syringeable Value Kit

Contents:

• 3 Geristore Dual Chambered Syringes
  – 10 grams each
• 60 Auto-mix tips
• 40 Intra-oral tips
• Instructions

Shade Options:

• A2 Kit
• A3 Kit
• Custom Kit: Choose combination of the following shades
  – A1, A2, A3, A3.5
Geristore Syringeable Intro Kit

Contents:

• 1 Geristore Dual Chambered Syringe 10 grams
  – Shade: A2
• 20 Auto-mix tips
• 10 Intra-oral tips
• Instructions
Geristore – Directions For Use

SURFACE PREPARATION

1. Clean tooth surface(s) thoroughly.

2. Surface preparations:
   a. DENTIN and ENAMEL: For maximum bond strengths, the Tenure® Multi-Purpose Bonding System should be applied prior to Geristore®.
   b. COMPOSITE/METAL: Roughen the surface with a diamond or a sandblaster. Thoroughly wash and air dry. Apply Dry Bond to degrease and assure a clean, dry surface.

3. Isolate the teeth.

4. Select the appropriate Geristore® B shaded paste. Optimum shading is achieved with 50/50 mix of Geristore® A and B paste shades.

5. Prior to drawing Geristore® Paste A, briefly stir paste in jar. Place equal amounts of Geristore® A and B pastes onto mixing pad. Mix well with a plastic mixing stick (do not use metal) until a smooth homogeneous paste is obtained.
DIRECT RESTORATIONS
(Class V’s, Intermediate Fillings, Temporary Cusps)

1. Load Geristore® mixture (see step 4 – 5, above) into a Centrix Syringe Tip and place the loaded tip in Centrix Syringe Gun. Material will reach final cure in 3-4 minutes from beginning of mix. Working time is 1.5 – 2 minutes unless light-cured. We recommend that you use the curing rings provided to determine the proper curing time for your light.

    a. Place the composite into the well of the ring, and then level the composite.
    b. Position the light guide approximately 2 to 5 mm from the surface of the ring.

        • If you are using a Sapphire® Plasma Arc Curing Light, start with 5-second intervals.
        • If you are using an Allegro High-Intensity LED or Phase II High-Speed Halogen Light, start with a 10-second interval.
        • If you have a conventional halogen light, start with 30 seconds.
Geristore – Directions For Use

c. Use a dental probe to check the underside for completeness of cure.
d. If necessary, repeat the curing cycle until the underside of the sample is completely cured.
e. Maintain a log showing the time necessary to cure your favorite composites, including their shades.

2. Finishing: For esthetic areas, apply a thin layer of Virtuoso® Flowable Clear (No.030381827) and light cure. Finish with 12 or 30 fluted bur and polish with Porcelain Laminate Polishing Paste.

CEMENTING INDIRECT RESTORATIONS
(Metal and PFM Crowns, Inlays, Onlays, Bridges)
Note: For Maryland Bridges and other restorations with little or no mechanical retention, we recommend applying the Tenure® System to dentin or enamel prior to the application of Geristore®.
Geristore – Directions For Use

1. Using a plastic instrument, coat tooth surface(s) and prepared bonding surface of indirect restorative with the Geristore® mixture. Seat the restorative, noting excess Geristore® escaping from all margins.

2. Take care not to disturb the restoration. Remove the excess after gel time (approximately 2 minutes) but before final cure (3-4 minutes from time of mix).

3. After the final set (approximately 3-4 minutes), finish the margins with a fine diamond or a 12 or 30 fluted bur.

BASE AND LINER

1. Apply Geristore® mixture to dentin surfaces and light-cure. Refer to DIRECT RESTORATIONS section for curing times.

2. Finish the restoration with Virtuoso® Packable Composite or take impression for indirect restorative. Geristore® is compatible with any Bis-GMA based restorative.
Geristore – Directions For Use

ORTHODONTIC APPLIANCES

1. For brackets, apply Tenure® Multi-Purpose Bonding System (No. 031146000) to the enamel. Coat the Geristore® mixture onto the bracket and seat the bracket. Remove excess with sable brush dipped in Visar Seal® Dab-Eze® (No. 0062) or Tenure® S Dab-Eze® (No. 031145201).

2. For bands, apply Tenure to the inside surface of the band and the enamel. Coat the inside surface of the band and the tooth with Geristore mixture and slide the band into place. Remove excess with a sable brush dipped in Visar Seal® Dab-Eze® or Tenure® S. Geristore® is compatible with any esthetic orthodontic hardware (porcelain, acrylic or plastic).

3. Light-cure. Refer to DIRECT RESTORATIONS section for curing times.
Geristore - Furcation Caries

Cavity in the fork-shaped junction of the roots of a tooth.

Restored tooth with Geristore
Geristore - Base and Liner

Geristore applied as a base/liner

Final restorations
Geristore - Pulp Cap

Exposed pulp

Pulp capped using Geristore
Geristore - Fractured Tooth

Fractured tooth

Geristore applied to cement fractured tooth together
Geristore – Fractured Tooth Cont

• Excess Geristore is extruded through the fracture margins and then cured
• Excess flash is removed
• Tooth is then prepared for full coverage restoration
  – The white arrows show the line of Geristore holding the core together
  – The black segmented arrow shows the fracture at the mesial aspect
Biocompatibility Clinical Studies

![Graph showing gingival fibroblast attachment over time for different materials: Geristore, ProRoot MTA, SuperEBA, and Amalgam. The graph indicates higher attachment percentages for Amalgam at 72 hours compared to other materials.](Journal of Endodontics Vol. 29, No. 9, September 2003)
Key Probing Questions

• Open Probes
  – What procedures do you do the most of?
    • Reference Geristore’s multi-application benefit. Save time, save money, save confusion in the office with less inventory
  – How do you currently treat sub-gingival restorations?
    • Reference bio-compatibility study

• Closed Probes
  – Do you get soft tissue re-attachment with your current restorative materials?
    • Reference bio-compatibility study
  – Are you interested in a restorative product that has multiple uses?
    • Reference Geristore’s multi-application benefit. Save time, save money, save confusion in the office with less inventory
  – Do you see geriatric/pediatric patients?
    • Reference Geristore’s multi-application benefit. Save time, save money, save confusion in the office with less inventory
    • Slow release fluoride
    • Quick procedure steps
Key Selling Points

• Numerous in-vitro studies have been conducted showing the superiority of Geristore
• Diametral tensile and compressive strength testing shows that Geristore outperformed 5 other materials tested
• Excellent tissue compatibility
• Ideal solution for sub-gingival restorations
• 21 Uses – ‘The Swiss Army Knife’ of dental offices
• Long-term fluoride release
• Low film thickness allows for precise fitting of crowns, inlays, etc.
• Dual Cure – match doctors’ preferred technique
• Radiopaque
Geristore – FAQ’s

• What is Geristore and what sets it apart from other materials on the market?
  – Geristore is a self-adhering, resin ionomer formula that has over seventeen uses. Its extremely high biocompatibility factor makes it a great product for pulp capping and sub-gingival restorations. It is the only paste-paste resin ionomer material that is easier to handle than powder liquids
  – It has been used successfully to repair root perforations, which indicates that it is very biocompatible

• Does Geristore require the use of a bonding agent?
  – Geristore is a self-adhesive material
  – A bonding agent is not required; however, Tenure is recommended for increased bond strength
  – Geristore will self-adhere to enamel, dentin, composite, metal, porcelain, and gingiva

• How biocompatible is Geristore?
  – Geristore is amazingly biocompatible
  – Clinical studies show that Gingival Fibroplast Attachment reached approximately a 260% cell attachment after 72 hours
Geristore – FAQ’s Continued

• **Is Geristore simple to use?**
  – Geristore comes in a dual-cartridge delivery system that does not require a gun
  – The paste-paste formulation self-mixes in the auto-mix tips provided in the kit, eliminating hand mixing
  – Intra-oral tips allow the material to be extruded directly into the prep area

• **Why should Geristore be my material of choice for sub-gingival restorations?**
  – Geristore is a hydrophilic Bis-GMA, enabling it to bond in the presence of moisture
  – Its histological biocompatibility, adherence to dentin and cementum, release of fluoride, lack of microleakage, low coefficient of thermal expansion, low polymerization shrinkage all combine to make it the restoration of choice for sub-gingival restorations