Dental Dual-Cured Adhesive Resin Cement

Gold Standard of Adhesive Resin Cement

- Outstanding bond to all substrates: enamel and dentin, ceramics, porcelain, composite resin and metal.
- Lowest leakage as proven by independent studies.
- Legendary PANAVIA adhesive technology: Proven 25+ years of experience since 1983.
- Virtually no post-operative sensitivity.
- Fluoride-releasing and radiopaque.
PANAVIA F 2.0: Gold standard of adhesive resin cement

PANAVIA F 2.0 is a universal resin cement which shows high bond strength for all indications and materials. PANAVIA F 2.0 has been regarded as an indispensable tool for permanent adhesion technique in the areas of all ceramic and metal restorations, especially for high quality and difficult cases. It is recommended by independents as a premium product. The resin cement has rare post-operative sensitivity and provides consistently good results. The anaerobic-curing properties do not begin until direct contact has been made with the restoration. The smooth consistency make PANAVIA F 2.0 a popular aid in daily practice, due to the user’s self-defined working time. Even after releasing fluoride, the cement maintains its high mechanical strength, due to the special surface coating technology of the sodium fluoride.

MDP: Kuraray’s Adhesive Technology

Kuraray’s unique adhesive monomer MDP in the primers create a strong chemical bond to hydroxyapatite and metals/metal oxides, ensuring a reliable adhesion to both enamel and dentin, zirconia/alumina and non-precious metal such as titanium. Being in use for more than 25 years, the MDP has a proven excellence in adhesion. It is a guarantee for a high bond strength and shows a reliable adhesion durability to the tooth structure and restorations.

Available in four shades

TC (Tooth Color): Translucent A3 (most like tooth structure)
Light: A1-A2 Shade (Lighter than TC)
White: Lighter than A1
Opaque: Opaque A2 (masks staining and discoloration)
High bond strength and consistent marginal integrity

Independent scientific research studies compellingly demonstrated PANAVIA F 2.0’s excellent marginal integrity.

Fig. 1: PANAVIA F 2.0 in combination with ED PRIMER II revealed least leakage values when DTLight quartz fiber posts were inserted. (The boxplot diagram depicts the median values and the 25 and 75 percentile values respectively of the relevant measurements of cements.)

Fig. 2: PANAVIA F 2.0 showed a lower degree of micro-leakage than RelyX* Unicem and Multilink* at both the enamel and dentin margins. The degree of micro-leakage for the die spacer group was not significantly different from the group with the no die spacer technique (p>0.1).

Fig. 3: Leakage of all ceramic crowns after simulated aging through cyclic loading (1.2 million) and dye penetration: micro-leakage is detected for RelyX* Unicem, but not PANAVIA F 2.0.

Technical Data

<table>
<thead>
<tr>
<th>Share Bond Strength to Tooth Structure &amp; Restorative Materials</th>
<th>24 hours</th>
<th>3000 thermal-cycles</th>
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</thead>
<tbody>
<tr>
<td>Human enamel</td>
<td>28.7 MPa</td>
<td>28.0 MPa</td>
</tr>
<tr>
<td>Human dentin</td>
<td>15.8 MPa</td>
<td>15.4 MPa</td>
</tr>
<tr>
<td>Zirconia (Cercon)</td>
<td>43.4 MPa</td>
<td>34.4 MPa</td>
</tr>
<tr>
<td>Alumina (Procera)</td>
<td>32.4 MPa</td>
<td>28.4 MPa</td>
</tr>
<tr>
<td>Gold Alloy (Type IV)*</td>
<td>28.0 MPa</td>
<td>32.3 MPa</td>
</tr>
<tr>
<td>Titanium (Titan 100)</td>
<td>38.8 MPa</td>
<td>37.6 MPa</td>
</tr>
<tr>
<td>Porcelain (VITA CELAY)**</td>
<td>24.9 MPa</td>
<td>25.7 MPa</td>
</tr>
</tbody>
</table>

*with ALLOY PRIMER, **with CLEARFL™ CERAMIC PRIMER

PANAVIA F 2.0 bonds to all substrates. Outstanding adhesion to enamel, dentin, CAD/CAM blocks, ceramics, precious and non-precious metals, porcelain and resin. For zirconia/alumina and non-precious metal such as titanium, pre-treatment with primer is not needed; PANAVIA F 2.0 bonds directly to the surface.
**Highlights of Cementation Procedure**

**Clinical procedure**

Cementation of precious & semi-precious metal restorations

1. **Sandblast, Ultrasonic, clean and dry.**
2a. **Apply ALLOY Primer.**
2b. **Apply a phosphoric acid for 5 sec. Rinse and air-dry.**

**Pre-treatment of porcelain/composite resin**

1. **Sandblast, Ultrasonic, clean and dry.**
2a. **Apply a phosphoric acid for 5 sec. Rinse and air-dry.**
2b. **Apply the primer and air-dry.**

**For Zirconia/Alumina and non-precious metal**

1. **Sandblast, Ultrasonic, clean and dry.**

**Step 2a and 2b are not needed.**

3. **Apply mixed ED PRIMER II A + B and wait for 30 sec.**
4. **Air-dry gently.**
5. **Dispense equal amounts of paste A and B.**

**Ordering Information**

**Complete Kit**

- **Contains:** Each kit includes: 1 PANAVIA F 2.0 Paste A: 2.3 ml, 1 PANAVIA F 2.0 Paste B: 2.3 ml, 1 ED Primer II Liquid A (4 ml), 1 ED Primer II Liquid B: 4 ml, 1 PANAVIA F 2.0 OXYGUARD II: 6 ml, 1 CLEARFIL Ceramic Primer: 4 ml, 1 Alloy Primer: 5 ml, Accessories.

**Refills**

- **PANAVIA F 2.0 A Paste:** 2.3 ml
- **#493KA**
- **PANAVIA F 2.0 B Paste:** 2.3 ml each
- **#494KA TC**
- **#495KA White**
- **#496KA Opaque**
- **#497KA Light**
- **PANAVIA F 2.0 ED Primer II:** 4 ml each
- **#491KA Liquid A**
- **#492KA Liquid B**
- **PANAVIA F 2.0 OXYGUARD II:** 6 ml
- **#490KA**
- **CLEARFIL CERAMIC PRIMER:** 4 ml
- **#2550KA**
- **ALLOY PRIMER:** 5 ml
- **#064KA**
- **K-ETCHANT GEL:** 6 ml
- **#013KA**

**Introductory Kit**

- **Contains:** 1 PANAVIA F 2.0 Paste A: 1 ml, 1 PANAVIA F 2.0 Paste B: 1 ml, 1 ED Primer II Liquid A: 1 ml, 1 ED Primer II Liquid B: 1 ml, 1 PANAVIA F 2.0 OXYGUARD II: 6 ml, Accessories.

Source: Kuraray Medical Inc.