x-tra base

FLOWABLE BULK FILL BASE COMPOSITE

x-tra base is a flowable, self-leveling base liner composite which allows increments of up to 4mm to be placed in a single step and light cured in only 10 seconds when using the Universal shade.

Indications
– Lining (restoration base) for class I and II cavities
– Cavity lining (base layer) for class I and II cavities.

Low shrinkage stress and outstanding physical properties for long lasting posterior restorations

VOCO’s advanced polymer technology gives x-tra base up to 60% lower shrinkage stress than conventional flowable composites. With the combined low shrinkage, high flexural and compressive strength, x-tra base is suitable as a bulk fill base liner in posterior fillings.

Suitable for facial walls

A lower water absorption and solubility based on a higher filler content leads to increased hardness. This allows x-tra base to also be used in the open and closed sandwich technique. Different from other flowable bulk fill composites, it is not required to build facial walls with a universal composite.

Outstanding quality – scientifically proven

<table>
<thead>
<tr>
<th></th>
<th>x-tra base Universal shade (VOCO)</th>
<th>SDR™ Universal shade (Dentsply)</th>
<th>Venus® Bulk Fill Universal shade (Heraeus Kulzer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curing time (s) with 4-mm increment thickness (as per instructions for use)</td>
<td>10</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Radiopacity [% Al] (as per ISO 4049)</td>
<td>350</td>
<td>306</td>
<td>247</td>
</tr>
<tr>
<td>Shrinkage stress [MPa] (Biomann method)</td>
<td>5.93</td>
<td>6.54</td>
<td>6.79</td>
</tr>
<tr>
<td>Shrinkage [% v/v] (bonded disc)</td>
<td>2.54</td>
<td>2.57</td>
<td>3.25</td>
</tr>
<tr>
<td>Filler content [%] (as per the instructions for use)</td>
<td>75</td>
<td>approx. 68</td>
<td>65</td>
</tr>
<tr>
<td>Flexural strength after thermocycling, 3000 cycles [MPa] (as per ISO 4049)</td>
<td>141</td>
<td>126</td>
<td>94</td>
</tr>
<tr>
<td>Compressive strength [MPa] (as per ISO 9917)</td>
<td>357</td>
<td>220</td>
<td>328</td>
</tr>
<tr>
<td>Micro Vickers Hardness [MHV]</td>
<td>100</td>
<td>61</td>
<td>52</td>
</tr>
<tr>
<td>Toothbrush abrasion [μm] (abrasion as per ISO 11609, measurement by means of laser profilometry)</td>
<td>16</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>Water absorption / solubility [μg/mm³] (as per ISO 4049)</td>
<td>7.73 / &lt; 0.1</td>
<td>20.18 / 2.89</td>
<td>24.90 / 0.41</td>
</tr>
</tbody>
</table>

Source: VOCO GmbH internal measurements 2011, SDR and Venus Bulk Fill are not registered trademarks of VOCO GmbH.

1 Source: Prof. Dr. D. Behrend, University of Rostock, 2011
Save up to 50% on procedure time

x-tra base not only makes placement easier, it can also cut your procedure time in half. It saves you two increment layers. The x-tra base universal shade cures in only 10 seconds, which is half the setting time of other bulk fill flowable composites. After the placement and polymerization of x-tra base, the restoration base is covered occlusally with a thin 2mm layer of a universal or posterior composite.

Two delivery systems

Choose between hygienic unit dose or economical syringe delivery systems.

The x-tra base unit dose caps come with an extra long bendable needle tip. Bend them the way you need for your procedure. The x-tra base tip is 60% longer than the leading bulk fill flowable material, giving you easier access in hard to reach areas. x-tra base also comes in VOCO’s patented NDT syringes. These non-dripping syringes are economical to use and prevent excess material from running out of the syringe. This saves material and keeps your working environment clean.

Two shades

x-tra base is available in Universal and A2 shades. In most cases, the extremely quick to cure Universal shade is the first choice for the restoration base. A2 is recommended for visible areas to achieve esthetic results.

Excellent handling with smart self-leveling effect

The flowable consistency makes it easy for the material to flow into the smallest undercuts. The smart self-leveling effect saves time. x-tra base will level by itself without slumping out of maxillary restorations.

<table>
<thead>
<tr>
<th>Procedures</th>
<th>x-tra base</th>
<th>Conventional Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Application Time</td>
<td>Curing Time</td>
</tr>
<tr>
<td>Flowable Liner</td>
<td>30s</td>
<td>10s</td>
</tr>
<tr>
<td>Universal Composite 1. layer</td>
<td>30s</td>
<td>20s</td>
</tr>
<tr>
<td>Universal Composite 2. layer</td>
<td>30s</td>
<td>20s</td>
</tr>
<tr>
<td>Occlusal Layer</td>
<td>60s</td>
<td>20s</td>
</tr>
<tr>
<td>Total Time</td>
<td>2min</td>
<td></td>
</tr>
</tbody>
</table>

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</tr>
<tr>
<td>30s</td>
<td>20s</td>
<td>20s</td>
<td>20s</td>
</tr>
<tr>
<td>60s</td>
<td>20s</td>
<td>60s</td>
<td>20s</td>
</tr>
</tbody>
</table>

A fully prepared cavity
Coating of the cavity walls with Futurabond DC
Start at the deepest point in the cavity...
... and fill up to 4mm with x-tra base
Apply a 2-mm occlusal layer of GrandioSO
Finished restoration
x-tra fil

PACKABLE BULK FILL POSTERIOR COMPOSITE

x-tra fil is a posterior, universal shade composite, that allows the clinician to cure 4mm layers in 10 seconds. It is the perfect match for patients with a limited budget where esthetics are secondary and your office time counts. Use with Futurabond DC and you can complete a 4mm posterior restoration in less than 2 minutes. x-tra fil has a smooth and non-sticky consistency that does not slump. A high radiopacity of 330% Al makes x-ray identification easy.

Bond, fill, sculpt and cure a 4mm restoration in less than 2 min
When speed is the primary objective, x-tra fil and Futurabond DC are the winning combination. Finish a 4mm restoration in less than 2 minutes.

Multihybrid technology for uncompromising results
x-tra fil’s speed does not compromise the quality of the restoration. The modern composite is based on state of the art multihybrid technology. By optimizing the filler sizes, the material achieves an extreme high filler degree of 86%. This reduces shrinkage and improves wear resistance.

Technical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filler Content</td>
<td>86% by weight</td>
</tr>
<tr>
<td>Shrinkage Stress</td>
<td>3.5 MPa</td>
</tr>
<tr>
<td>Volumetric Shrinkage</td>
<td>1.7%</td>
</tr>
<tr>
<td>Radiopacity</td>
<td>330% Al</td>
</tr>
<tr>
<td>Wear (ACTA)</td>
<td>43μm</td>
</tr>
<tr>
<td>Flexural Strength after TC</td>
<td>145MPa</td>
</tr>
<tr>
<td>Surface Hardness</td>
<td>142MHV</td>
</tr>
</tbody>
</table>

Indications

– Restorations class I and II in bulk-filling technique
– Core build-up

Clinical case is a courtesy of Prof. Dr. Juergen Manhart
Futurabond DC ++++++

VOCO America, Inc.
888.658.2584
www.vocoamerica.com

Description

Futurabond DC is a dual-cured, self-etching bonding agent (7th-generation) that is reinforced with nanoparticles. It is indicated for use with direct light-, dual- or self-cured composite restorations and core build-ups plus cementation of posts and indirect restorations (inlays, crowns and bridges) with light-, dual-, or self-cured resin composite cements. The system includes two liquids - the self-etching bonding agent and the dual-cured activator. Futurabond DC is available in SingleDose blister packs or in 4-ml bottles. To use the blister pack, press the blister to allow mixing of the two liquids. Puncture the foil with the applicator brush and stir. Apply to the tooth for 20 seconds, air dry and light cure for 10 seconds. Futurabond DC SingleDose was evaluated by 18 Editors in over 370 cases. This product received a 96% clinical rating.

Evaluation Protocol

• Futurabond DC SingleDose was evaluated by 18 Editors in over 370 cases.

Editors’ Observations

Manufacturer Instructions and Packaging

The SingleDose packets are compact and provide an adequate amount of material for multiple restorations. The product is packaged with an illustrated instruction card. Room temperature storage enhances the convenience of Futurabond DC, allowing it to be stored in the operatory, rather than under refrigeration.

Ease of Application/ Surface Wettability and Viscosity

The SingleDose blister is easy to activate and mix with the applicator brush included, but there is no way to determine visually if the product is adequately mixed. Futurabond DC consistently earned high ratings for its viscosity and wettability. Editors reported that it was easy to wet the tooth surface with the material and it was easy to apply. The entire bonding process is time-efficient.

Time Required for Bonding Procedure/Usefulness for Various Procedures

Editors reported that Futurabond DC was quick to use, with a 35-second total procedure time: 20 seconds for application, five seconds for air dispersal, and 10 seconds for light curing. The system is versatile in its compatibility with common restorative and cementation procedures.

Lack of Patient Sensitivity

No postoperative sensitivity was reported during the evaluation period.

Clinical Tips

• To avoid bending the brush head, puncture the foil of the SingleDose with the handle end of the applicator brush if you do not use the VOCO Single Tim brush.
• When using Futurabond DC for post cementation, do not light cure the bonding agent in the post space.
### x-tra fil

**PACKABLE POSTERIOR**

**BULK FILL COMPOSITE**

**CURE 4MM IN 10 SEC**

**Advantages**
- Use with Futurabond DC to bond, sculpt and cure a 4mm MOD restoration in less than 150 sec.
- 86% filled for excellent wear resistance
- Low 1.7% shrinkage for tight margins
- High radiopacity (330% Al) for easy x-ray identification
- No extra noisy and expensive equipment required
- Available in syringes and unit dose caps

**Presentation**
- REF 1740 pack 1-5gm syringe, shade Universal
- REF 1741 pack 20-0.25gm caps, shade Universal

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### x-tra base

**FLOWABLE POSTERIOR**

**BULK BASE COMPOSITE**

**CURE 4MM IN 10 SEC**

**Advantages**
- 4mm cure in 10 sec. saves time*
- Low shrinkage stress allows bulk fill speed
- High strength makes it suitable for open and closed sandwich technique
- Smart self-leveling properties for excellent wall adaptation without slumping out of maxillary restorations
- High radiopacity (350% Al) for easy x-ray identification
- Available in patented non-dripping NDT syringes or unit dose caps with extra long bendable needle tip
- Available in shades A2 and Universal

*universal shade

**Presentation**
- REF 1790 pack 2-2gm syringe, shade Universal
- REF 1791 pack 2-2gm syringe, shade A2
- REF 1794 pack 16-0.25gm caps, shade Universal
- REF 1795 pack 16-0.25gm caps, shade A2

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