**Admira Fusion Flow**

FLOWABLE NANO-ORMOCER® DIRECT RESTORATIVE

**Indications**
- Filling of small cavities and extended fissure sealing
- Blocking out undercuts
- Lining or coating cavities
- Fillings of class III–V cavities
- Repairing fillings, veneers and temporary restorations
- Luting translucent prosthetic pieces (including veneers)
- Locking, splinting of loose teeth

**Advantages**
- The world's first all ceramic-based direct flowable restorative material
- Pure Silicate Technology: Fillers and matrix are based purely on silicon oxide
- No classic monomers for higher biocompatibility (no BisGMA, UDMA, HEMA or TEGDMA etc.)
- Nano-ORMOCER® technology reduces shrinkage (2.75% by volume) and shrinkage stress to the level of universal composites
- Inert for outstanding shade stability
- Compatible with conventional adhesives
- Easy to polish to a high shine luster
- Excellent wettability
- Thixotropic material that will “flow on demand” without slumping
- Non-Dripping Syringe Technology (NDT®)
- Radiopaque (240% Al)
- 12 shades for esthetic restorations – perfectly matching the shade range of the packable version, Admira Fusion Shade
- A1
- A2
- A3
- A3.5
- A4
- B1
- B2
- C2
- OA2 (opaque A2)
- BL (Bleach)
- WO (White Opaque)

**Radiopacity**
- 240%

**Presentation**
- REF 2816 Syringe Intro Kit 5 × 2 g (A1, A2, A3, A3.5, WO), shade guide, accessories
- REF 2146 Intraoral tips type 41, 100pcs.
Admira Fusion / Admira Fusion Flow

THE WORLD’S FIRST ALL CERAMIC-BASED FLOWABLE DIRECT RESTORATIVE

The highly innovative ORMOCER® technology – developed by the Fraunhofer Institute for Silicate Research ISC – was first used by VOCO as early as 1999, for the restorative composite Admira. Since then, this pioneering technology has been the subject of continued consistent and meticulous research and development. The aim was to launch an ORMOCER® restorative material completely free of classic monomers, while also implementing the nano-hybrid technology developed by VOCO, which was first introduced and utilized in 2003 with the launch of the nano-hybrid composite Grandio.

The outstanding results of this endeavor are a range of nano-hybrid ORMOCER® restorative materials that make up the Admira Fusion family of products.

"Pure Silicate Technology“ inside

Silicon oxide forms the chemistry base for Admira Fusion and Admira Fusion Flow, not only for the fillers (nano-fillers as well as glass ceramics) but also – and this represents the innovative achievement in development – for the resin matrix.

This unique "Pure Silicate Technology“ makes Admira Fusion Flow the world’s first all ceramic-based flowable direct restorative material and offers several remarkable advantages.

ORMOCER® = Highly biocompatible

Admira Fusion and Admira Fusion Flow contains no classic monomers, such as BisGMA, TEGDMA or HEMA, thus eliminating the potential for such substances to be released after polymerization.

The ORMOCER® (ORGanically MODified CERamics) which have been used in place of conventional monomers consist of large and precondensed molecules of an inorganic matrix with a high degree of cross-linking. With this ORMOCER® technology the overall results on Admira Fusion and Admira Fusion Flow is one of “excellent biocompatibility". (1)

[1] Leyhausen et al., Hannover Medical School, report to VOCO, 2015.
Admira Fusion Flow

THE WORLD’S FIRST ALL CERAMIC-BASED FLOWABLE DIRECT RESTORATIVE

Flowable restorative materials offer unique properties that provide solutions that otherwise would be unavailable to practitioners. For those practitioners that have found these unique solutions valuable then the nano-ORMOCER® Admira Fusion Flow will be an ideal material to create restorations of equal high-level quality, esthetics and results BUT with the added benefit of an entirely new level of biocompatibility, low shrinkage and low shrinkage stress. Based on the same evolutionary "Pure Silicate Technology“ as Admira Fusion, Admira Fusion Flow enables one to optimally treat everyday situations as well as special cases with an all ceramic-based flowable.

Low Shrinkage and Shrinkage Stress
Thanks to its innovative nano-ORMOCER® technology, Admira Fusion Flow exhibits a particularly low level of volumetric shrinkage (2.75% w/w) and up to 50% less shrinkage then traditional flowable composites. Additionally Admira Fusion Flow has very low shrinkage stress (7.27 MPa) especially for cavities with a high c-factor. Admira Fusion Flow therefore represents an ideal foundation and outstanding supplement for the universal restorative material Admira Fusion.

In addition, it is a first-class esthetic “troubleshooter” due to its high-grade surface hardness in combination with good - and simple - polishability.

Versatile and esthetic
Admira Fusion Flow is available in 12 shades of extreme color stability, which perfectly match the range of Admira Fusion shades. Thus Admira Fusion Flow helps you create durably esthetic restorations in a convenient manner.

The special shades Bleach-Light (BL) and White-Opaque (WO) also serve to treat unique indications. Bleach-Light can not only be used for whitened teeth, but also in pediatric dentistry. White-Opaque is an excellent foundation for restorations in cases such as discoloration in dentinal areas or core build-ups.
Admira Fusion Flow

FLOWABLE. BIOCOMPATIBLE. ESTHETIC.

Clinical Case

“Smart” handling
Admira Fusion Flow is a thixotropic material characterized by what can be defined as a “flow-on-demand” feature, which is of great advantage to the user because the material flows when under pressure but keeps its shape and remains in place as required for light-curing. Outstanding flow characteristics ensure an excellent degree of wetting throughout the entire cavity. The material adapts perfectly to the cavity walls and flawlessly fills even undercuts and tunnel preparations.

Technical data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Filler content</td>
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<tr>
<td>Polymerization shrinkage</td>
<td>2.75 % by vol.</td>
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<tr>
<td>Shrinkage stress</td>
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<td>3-point flexural strength</td>
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<tr>
<td>Modulus of elasticity</td>
<td>5.8 GPa</td>
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<td>Compressive strength</td>
<td>281 MPa</td>
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<tr>
<td>Radiopacity</td>
<td>240 %Al</td>
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<tr>
<td>Water absorption</td>
<td>12 μg / mm³</td>
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<td>Water solubility</td>
<td>&lt; 0.1 μg / mm³</td>
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<tr>
<td>Depth of cure</td>
<td>2.7 mm</td>
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Source: Dr. Walter Denner, Fulda / Germany
Admira Fusion Flow

FLOWABLE NANO-ORMOCER® RESTORATIVE MATERIAL

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<table>
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<td>2820</td>
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<td>2821</td>
</tr>
<tr>
<td>A4</td>
<td>2822</td>
</tr>
<tr>
<td>B1</td>
<td>2824</td>
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<td>B2</td>
<td>2825</td>
</tr>
<tr>
<td>C2</td>
<td>2826</td>
</tr>
<tr>
<td>OA2 (opaque A2)</td>
<td>2828</td>
</tr>
<tr>
<td>BL (Bleach)</td>
<td>2829</td>
</tr>
<tr>
<td>WO (White Opaque)</td>
<td>2831</td>
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<tr>
<td>A2</td>
<td>2832</td>
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Admira Fusion Flow

FLOWABLE NANO-ORMOCER® RESTORATIVE MATERIAL

Presentation

REF 2816  Syringe Intro Kit 5 × 2 g (A1, A2, A3, A3.5, WO), shade guide, accessories
REF 2146  Intraoral tips type 41, 100pcs.

<table>
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<th>Syringe 2 × 2 g</th>
<th>Shade</th>
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<tbody>
<tr>
<td>A1</td>
<td>REF 2818</td>
<td>B2</td>
<td>REF 2825</td>
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<tr>
<td>A2</td>
<td>REF 2819</td>
<td>C2</td>
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<td>REF 2820</td>
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<td>REF 2828</td>
</tr>
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<td>A3.5</td>
<td>REF 2821</td>
<td>OA2 (opaque A2)</td>
<td>REF 2829</td>
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<td>A4</td>
<td>REF 2822</td>
<td>BL (Bleach)</td>
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<tr>
<td>B1</td>
<td>REF 2824</td>
<td>WO (White Opaque)</td>
<td>REF 2832</td>
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VOCO America Inc.
1245 Rosemont Drive
Suite 140
Indian Land - SC 29707
www.vocoamerica.com
infousa@voco.com
Toll-free phone: 1-888-658-2584
Fax: 1-888-849-3989