Admira® Fusion
Admira® Fusion x-tra
NANOHYBRID ORMOCER® RESTORATIVE MATERIALS
Admira® Fusion

PURELY CERAMIC-BASED

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 nanohybrid technology developed by VOCO, which was first employed in 2003 for the manufacture of the composite material Grandio.

The outstanding result is the universal nanohybrid ORMOCER® restorative material Admira Fusion.

"Pure Silicate Technology" inside

Silicon oxide forms the chemical base for Admira Fusion, 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 the worldwide first purely ceramic-based restorative material and offers several remarkable advantages in one. These are listed in a clear overview shown on pages 4 and 5.

ORMOCER® = Highly biocompatible

Admira Fusion contains no classic monomers, such as BisGMA, TEGDMA or HEMA, thus eliminating the potential for such substances to be released after polymerisation. The ORMOCER®s (organically modified ceramics) which have been used instead consist of large and precondensed molecules of an inorganic matrix. Their high degree of cross-linking and their special chemical structure give Admira Fusion its increased biocompatibility, which is higher still than that of conventional composite materials.
Admira® Fusion achieves results of highest quality for anterior and posterior restorations. The combination of the innovative ORMOCER® technology with that of the tried and tested nanohybrid materials means that you are able to work with a product which sets new standards, both with regard to its handling characteristics as well as its strength and stability. Convince yourself of the non-sticky, smooth consistency of this material, which adapts excellently to the cavity walls and can be modelled to perfection. The quick and simple high-gloss polishing procedure, in conjunction with high surface hardness, makes Admira Fusion a guarantor for restorations which are aesthetic and remain intact for a long time. According to requirement and allowing for varying demands, Admira Fusion can be used either in a one-shade or a multiple-shade system. Three levels of translucency, or rather opacity, are available for this purpose, while the 10 universal Vita shades are perfectly balanced, achieving realistic results even with just one shade.

Clinical Cases

10 universal Vita shades – perfect for everyday use
4 special shades provide helpful support in extraordinary situations
4 opaque dentine shades allow highly aesthetic layer system working

Source: Dr. Sânzio Marques, Passos / Brazil

Enamel-dentine fracture on tooth 21
Modelling of dentine core (OA2) and incisal edge (I)
Applying the final layer (A2) and sculpting the shape of the tooth
Aesthetic result after polishing

Insufficient amalgam restorations in teeth 46 and 47
Prepared cavities
Modelling of the material which is still malleable at this stage (A2)
Finished, polished restorations
Admira Fusion sets new standards in restorative therapy in respect of materials science. Now you have the option of placing purely ceramic-based restorations chairside, and in just the same straightforward way as you are accustomed to from working with a good restorative composite. Admira Fusion allows you to offer your patients premium treatments in tooth shades which are of previously never achieved quality.

**Fact:**
Fillers and resin matrix based purely on silicon oxide, no content of classic monomers.

**Your benefit:**
Highest level of biocompatibility, minimised allergy potential.

**Fact:**
Very high surface hardness (141 MHV), coupled with simple and effective polishing procedure.

**Your benefit:**
Highly stable and smooth fillings are best able to withstand the loads imposed on a daily basis by chewing, and they also impede the adhesion of microorganisms.
Fact:
Extremely low polymerisation shrinkage (1.25% by volume) and very low shrinkage stress (3.87 MPa).

Your benefit:
Marginal integrity of the highest standard for fillings remaining intact for the long term.

Fact:
Ultimate colour stability, even in extreme conditions (2 weeks storage in red wine).

Your benefit:
Lastingly aesthetic restorations equate to highly satisfied patients.
Admira® Fusion x-tra

**QUICK. SIMPLE. CERAMIC.**

Admira Fusion x-tra is the fast-track version of Admira Fusion. This means that this restorative material can be applied in layers of up to 4 mm and then reliably cured. This makes placing posterior restorations particularly quick and economical for you. The universal shade U further simplifies handling, as it provides aesthetic results by adapting, chameleon-like, to the surrounding dental substance.

**Marginal integrity of the highest standard**
The special ORMOCER® compound molecules in Admira Fusion x-tra reduce the volume shrinkage to an extremely low level (1.25 % by volume) in conjunction with very low shrinkage stress (3.87 MPa). Especially in cases of very large cavities, which are filled in the bulk technique, these two factors guarantee optimal marginal integrity of the restorative material and thus significantly contribute to the long-term success of the restoration.

**High quality achieved with one universal shade**
Not only does Admira Fusion x-tra rapidly produce posterior restorations which are of high quality from a material science point of view, it also saves you having to select a shade, which can at times be complicated. At the same time, you will be convinced by the aesthetic final result, which will be to the permanent satisfaction of your patients.

**Clinical Case**

- Insufficient composite restoration in tooth 45
- Prepared cavity awaiting filling
- Application of Admira Fusion x-tra in 4-mm layers
- Functional and aesthetic final result

Source: Dr. Walter Denner, Fulda / Germany
Admira® Fusion x-tra

NANOHYBRID ORMOCER® RESTORATIVE MATERIAL, 4 MM

**Indications**
- Class I and II posterior restorations
- Base in class I and II cavities
- Class V restorations
- Locking, splinting of loose anteriors
- Extended fissure sealing
- Repairing veneers, small enamel defects and temporary C&B-materials
- Restoration of deciduous teeth
- Core build-up

**Advantages**
- Purely ceramic-based, fast-track restorative material
- Fast and high-quality – reliable curing of 4 mm layers
- Thanks to the most innovative ORMOCER® technology – by far the lowest polymerisation shrinkage (1.25 % by volume) and particularly low level of shrinkage stress, providing optimal marginal integrity
- Inert, so highly biocompatible and extremely resistant to discolouration
- Excellent handling, simple high-lustre polishing procedure coupled with high surface hardness guarantee first-class long-term results
- Universal shade with chameleon effect
- Compatible with all conventional bonding agents
- In terms of materials science identical to the universal restorative material Admira Fusion – a perfectly matched system

**Presentation**
- REF 2810 Syringe 3 g universal
- REF 2811 Caps 15 × 0.2 g universal
Advantages

• The worldwide first purely ceramic-based restorative material
  – pure Silicate Technology, i.e., fillers and resin matrix based
  purely on silicon oxide
  – contains no classic monomers

• Thanks to the most innovative ORMOCER® technology
  – by far the lowest polymerisation shrinkage (1.25 % by
  volume) and particularly low level of shrinkage stress in
  comparison to all conventional restorative composites
  – inert, so highly biocompatible and extremely resistant to
discolouration

• Completely universal – meeting highest demands in anterior
  and posterior regions
  – perfect coordination of translucence with opacity for
  natural results
  – the optimal selection of shades enables highly flexible
  working using either the single or multiple shade system

• Excellent handling, simple high-lustré polishing procedure
coupled with high surface hardness guarantee first-class
long-term results

• Compatible with all conventional bonding agents

Presentation

REF 2750 Set + bond
syringe 5 x 3 g (A2, A3, GA3.25, A3.5, Admira Fusion x-tra),
shade guide + Futurabond U SingleDose 20 pcs., accessories

REF 2752 Shade guide

REF 2780 Set + bond
Caps 75 x 0.2 g (15 each of A2, A3, GA3.25, A3.5,
Admira Fusion x-tra), shade guide + Futurabond U SingleDose
20 pcs., accessories

Shade | Syringe 3 g | Caps 15 x 0.2 g | Shade | Syringe 3 g | Caps 15 x 0.2 g | Shade | Syringe 3 g | Caps 15 x 0.2 g
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A1 | REF 2754 | REF 2782 | B1 | REF 2762 | REF 2790 | OA3 | REF 2772 | REF 2800
A2 | REF 2755 | REF 2783 | B2 | REF 2763 | REF 2791 | OA3.5 | REF 2773 | REF 2801
A3 | REF 2756 | REF 2784 | B3 | REF 2764 | REF 2792 | BL | REF 2775 | REF 2803
GA3.25 | REF 2757 | REF 2785 | C2 | REF 2766 | REF 2794 | Incisal | REF 2776 | REF 2804
A3.5 | REF 2758 | REF 2786 | D3 | REF 2768 | REF 2796 | Mixed | – | REF 2806
A4 | REF 2759 | REF 2787 | OA1 | REF 2770 | REF 2798 | *(3 each of B1, B3, D3, BL, Incisal)
GA5 | REF 2760 | REF 2788 | OA2 | REF 2771 | REF 2799

VOCO GmbH
Anton-Flettner-Straße 1-3
27472 Cuxhaven
Germany
Tel.: +49 (0) 4721-719-0
Fax: +49 (0) 4721-719-140
info@voco.com
www.voco.com

Available from: