

THE FIRST **ALL CERAMIC** DIRECT RESTORATIVE MATERIAL

Admira® Fusion

PURE SILICATE
ALL CERAMIC
PARADIGM SHIFT EVOLUTIONARY
GROUND BREAKING
NEW **ADMIRA** 1.2%
NANO **FUSION** SHRIN-
SOLUTION KAGE
NEXT GENERATION
INNOVATION
PRECISION
EXCELLENCE
VOCO
NANO
ORMOCER
TECHNOLOGY

THE **IDEA** IS NOW A **REALITY**



Admira Fusion

NANO ORMOCER® RESTORATIVE MATERIALS



VOCO
THE DENTALISTS

Admira® Fusion

ALL CERAMIC DIRECT RESTORATIVE

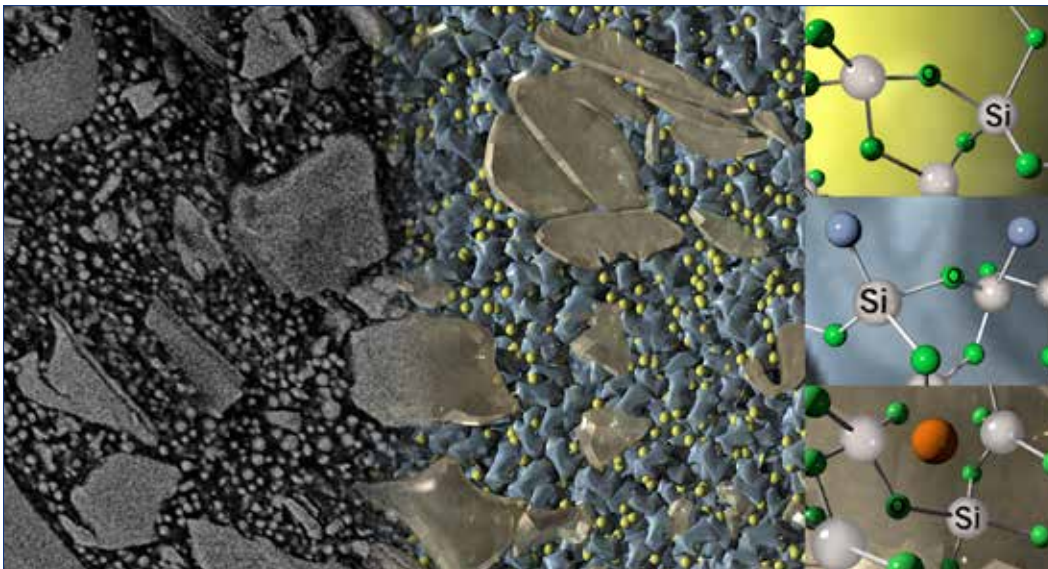
The highly innovative ORMOCER® technology – developed by the Fraunhofer Institute for Silicate Research ISC – was first used by VOCO as early as 1999, for the restorative composite Admira®. Since then, this pioneering technology has been the subject of continued consistent and meticulous research and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



Left image:
TEM view of Admira® Fusion,
magnified 20,000 times;
Source: Prof. Dr.-Ing. Detlef Behrend,
University of Rostock

Right image:
schematic drawing
of the TEM image,
including commentary

ORMOCER® = Highly biocompatible

Admira® Fusion contains no classic monomers, such as Bisphenol A, BisGMA, TEDGMA or HEMA, thus eliminating the potential for such substances to be released after polymerization. The ORMOCER® (**OR**ganically **MO**modified **CER**amics) 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 is one of “excellent biocompatibility”.⁽¹⁾

The overall verdict on Admira® Fusion is one of “excellent biocompatibility”. [1]

Admira® Fusion

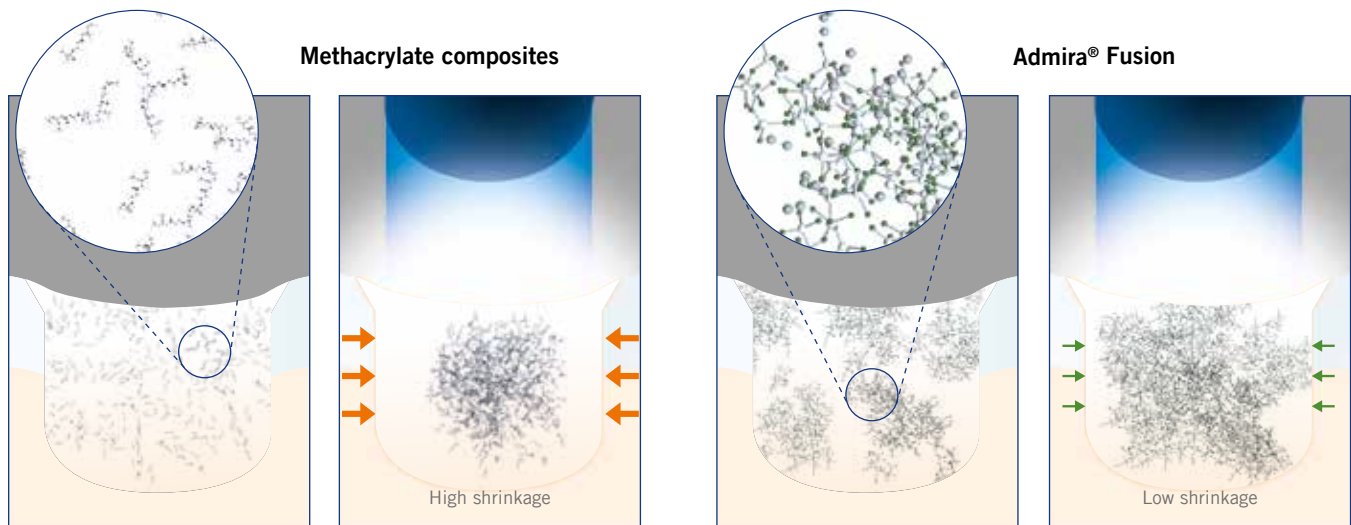
UP TO 50% LESS SHRINKAGE THEN CONVENTIONAL COMPOSITES

Composite resins have been in use within dentistry for almost 50 years and along with their use has always been a concern regarding the impact of their initial shrinkage (initially as high as 5% though currently around 2 to 3%) as it relates to marginal integrity and micro-leakage and in the end the overall integrity and longevity of the restoration. Today Admira® Fusion's nano-ORMOCER® technology offers a step forward in the evolution of direct restorations and specifically in the arena of initial shrinkage with only 1.25% (by volume) shrinkage which is up to 50% less shrinkage than many conventional composites.

Marginal integrity of the highest standard

The special ORMOCER® compound molecules in Admira® Fusion 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.



Admira® Fusion

PHYSICAL PROPERTIES THAT OFFER THE NEXT LEVEL OF PERFORMANCE FOR A DIRECT RESTORATIVE

Admira® Fusion sets new standards in restorative dentistry in respect to 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 with a level of quality previously never achieved.

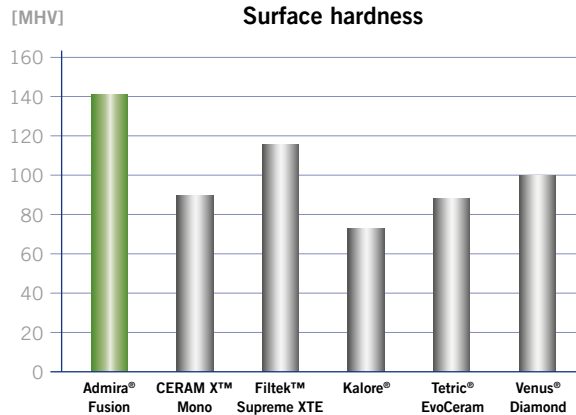
A NEW LEVEL OF BIOCOMPATIBILITY

Fact:

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

Benefit to You:

Highest level of biocompatibility, minimized allergy potential.



Source: Prof. Dr. D. Behrend, University of Rostock, 2014

HIGH SURFACE HARDNESS FOR BETTER LONGEVITY

Fact:

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

Benefit to You:

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 micro-organisms.

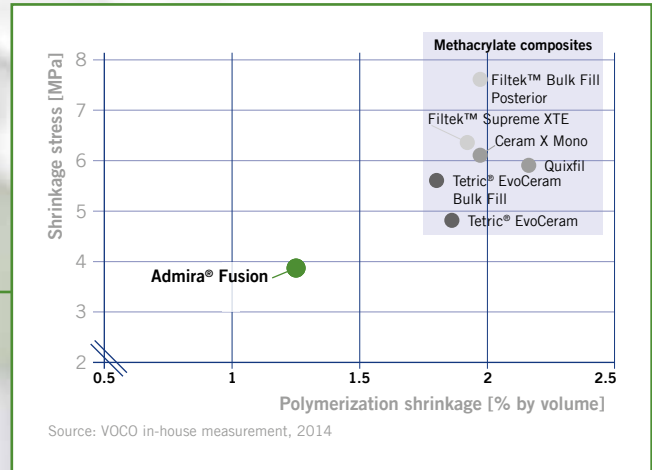
UP TO 50% LESS SHRINKAGE AND SHRINKAGE STRESS

Fact:

Extremely low polymerization shrinkage (1.25% by volume) and very low shrinkage stress (3.87 MPa).

Benefit to You:

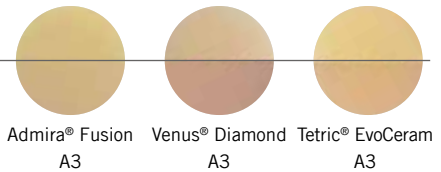
Marginal integrity of the highest standard for fillings remaining intact for the long term.



ELEVATED AESTHETICS WITH EXTENDED LONGEVITY

Initial

After 2 weeks of storage in red wine



Fact:

Ultimate color stability, even in extreme conditions (2 weeks storage in red wine).

Benefit to You:

Long lasting aesthetic restorations equate to highly satisfied patients.

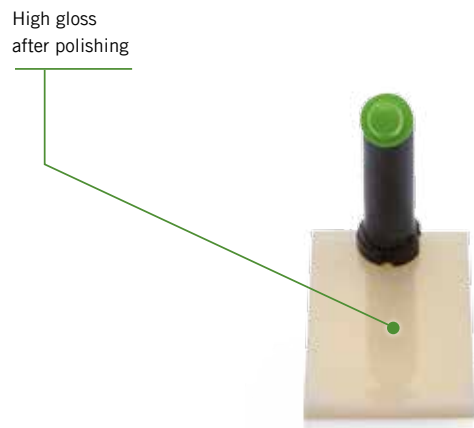
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Admira® Fusion

SMOOTH. PREMIUM-QUALITY. AESTHETIC.

Admira® Fusion achieves results of the highest quality for anterior and posterior restorations. The combination of the innovative ORMOCER® technology with that of the tried and tested nanohybrid technology 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. We invite you to convince yourself of the non-sticky, smooth consistency of this material, which adapts excellently to the cavity walls and can be modeled to perfection. The quick and

simple high-gloss polishing procedure, in conjunction with its high surface hardness, makes Admira® Fusion a guarantor for restorations which are aesthetic and remain intact for a long time. In accordance to the varying clinical requirements, needs and/or demands, Admira® Fusion can be used either in a one-shade or a multiple-shade system. Three levels of translucency (i.e. 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



Enamel-dentin fracture on tooth 9



Modeling of dentin 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 30 and 31



Prepared cavities



Modeling of the material which is still malleable at this stage (A2)



Finished, polished restorations

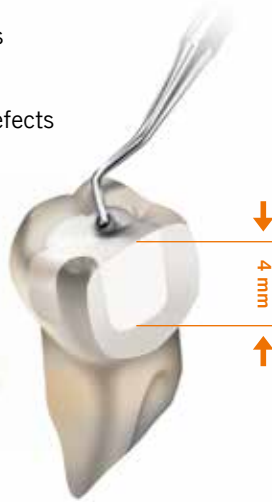
Source: Dr. Sânzio Marques, Passos / Brazil

Admira® Fusion x-tra

NANO ORMOCER® BULK FILL RESTORATIVE MATERIAL

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 discoloration
- 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 x 0.2 g universal

Admira® Protect

LIGHT-CURED, NANO-FILLED ORMOCER® DESENSITIZER

The first light-curing ORMOCER®-based desensitizer

Admira® Protect is an innovative ORMOCER®-based light-curing protective varnish for desensitization. Hypersensitivity, especially cervical dentin hypersensitivity, is reduced for up to 2 years, in most cases after only one application. Admira® Protect is also recommended to desensitize crown margins, after tooth cleaning and scaling and for exposed cervical areas. The varnish safely seals the tubules permanently. Transfer of stimuli is significantly reduced. A special filler technology designed for this indication provides very good wear resistance of the protective layer. The ORMOCER®-matrix of Admira® Protect offers excellent biocompatibility.

Advantages

- No hypersensitivity for up to two years
- ORMOCER®-based biocompatibility
- Special nano-filler technology for high wear resistance
- Contains Fluoride

Admira® Protect in practical SingleDose

- Fast and simple dispensing
- No spilling



Presentation

Admira® Protect
 REF 1650 pack 1-4.5ml bottle
Admira® Protect SingleDose
 REF 1651 pack 50-0.06ml SingleDose, 50 Micro Tim
 REF 1652 pack 200-0.06ml SingleDose, 200 Micro Tim



Admira® Fusion

UNIVERSAL NANO ORMOCER® RESTORATIVE MATERIAL

Indications

Class I to V restorations
 Base in class I and II cavities
 Reconstruction of traumatically damaged anteriors
 Facetting of discolored anteriors
 Correction of shape and shade for improved aesthetic appearance
 Locking, splinting of loose anteriors
 Repairing veneers, small enamel defects and temporary C&B-materials
 Extended fissure sealing
 Restoration of deciduous teeth
 Core build-up
 Composite inlays



Advantages

- The world's first purely ceramic based direct universal restorative material
- Pure Silicate Technology: Fillers and matrix are based purely on silicate oxide
- No classic monomers for higher biocompatibility (no BISGMA, BPA, UDMA or TEDGMA etc.)
- Nano-ORMOCER® technology reduces shrinkage and shrinkage stress by up to 50% compared to composites and leads to outstanding shade stability
- Non-sticky consistency for easy handling
- Perfect balance of translucency and opacity for natural looking restorations
- Easy to polish to a high shine luster
- High 84% fill rate for high wear resistance
- Compatible with all conventional bonding agents

Presentation

REF 2750 Syringe Kit
 syringe 5 x 3 g (A1, A2, A3, A3.5, Admira® Fusion x-tra),
 shade guide, accessories

REF 2780 Caps Kit
 Caps 75 x 0.2 g (15 each of A1, A2, A3, A3.5,
 Admira® Fusion x-tra), shade guide, accessories

REF 2752 Shade guide

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
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			
GA5	REF 2760	REF 2788	OA2	REF 2771	REF 2799			

*(3 each of B1, C2, D3, BL, Incisal)

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