



4 mm

# Grandio<sup>®</sup>SO x-tra

AESTHETIC NANO-HYBRID BULK RESTORATIVE  
MATERIAL

# Grandio®SO x-tra

## UNBEATABLE ALSO IN 4 MM

With GrandioSO, VOCO has for many years supplied a nano-hybrid composite which is in a class of its own. It is distinguished by outstanding handling and excellent physical properties, modelled on the natural tooth. Since the market launch of GrandioSO, the success story has steadily continued – first with GrandioSO Flow and GrandioSO Heavy Flow, and now with the new GrandioSO x-tra, the packable bulk fill material for the highest standards in durability and aesthetics.

### 4 mm increments pose no problems

In addition to the time savings during restoration placement, bulk fill composites offer a handling advantage in hard-to-reach areas where layering in 2 mm increments is difficult. The increase in the increment thickness to 4 mm and reduction in the number of individual increments mean that the restorative material has to meet more demanding requirements (especially with regard to shrinkage and curing). GrandioSO x-tra does this with ease.

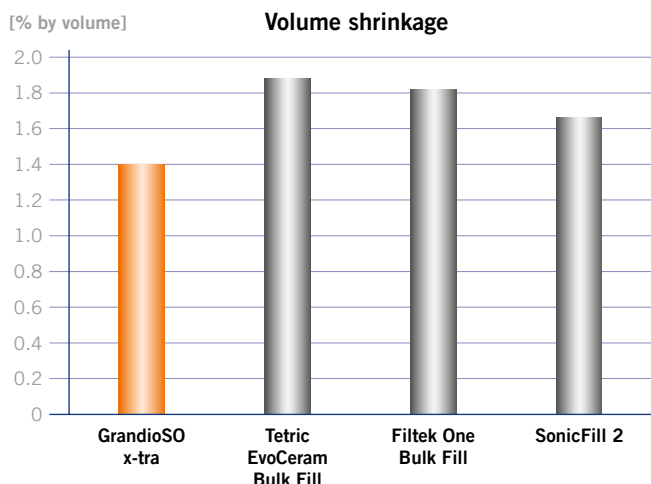
### No fear of shrinkage or marginal gaps

4 mm increments: this means a relatively high proportion of the composite surface is in contact with the cavity margin, which turns the focus to the issue of shrinkage. With volume shrinkage of 1.4 % by volume and shrinkage stress of 5.16 MPa, GrandioSO x-tra is a bulk fill composite in a class of its own. So with regard to shrinkage, too, you are on the safe side.

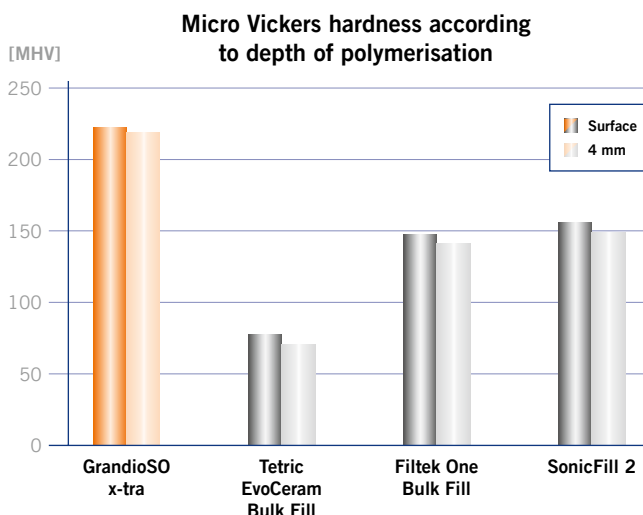
### No fear of insufficient strength or curing

A study from the University of Zagreb shows that GrandioSO x-tra has outstanding surface hardness, at 223 MHV, which is closer to natural tooth enamel, compared with other bulk fill composites. Because of this, GrandioSO x-tra ensures restorations which are abrasion-resistant and dimensionally stable over the long term.

In addition to the surface hardness, reliable curing is very important when larger increments are used. Here as well, GrandioSO x-tra achieves an outstanding result and, at the 219 MHV measured at a depth of 4 mm, it even significantly exceeds the values measured for other bulk fill composites at the surface.



Source: In-house measurement, 2017



Source: T. Skrinjaric, University of Zagreb / Croatia, 2017

## Grandio®SO x-tra

### AESTHETICS FOR THE POSTERIOR REGION

Because of its excellent physical properties, GrandioSO x-tra reliably withstands all stresses in the posterior region, behaves like the natural tooth, and thus ensures long-lasting restorations, just as you have come to expect from GrandioSO. And what is particularly important, the very good physical parameters do not entail any compromise on handling or aesthetics.

#### Four shades – The choice is yours

GrandioSO x-tra is the aesthetic bulk fill material for restorations in the posterior region. We offer you GrandioSO x-tra in the shades A1, A2 and A3.

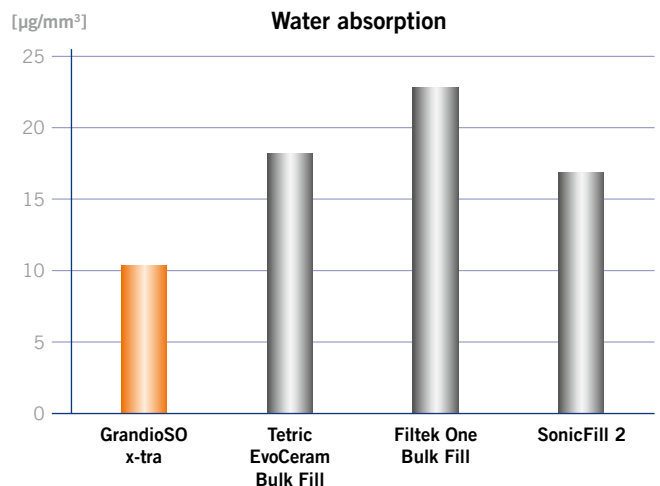
If you would rather opt for maximum efficiency by keeping only a single universal shade, that's no problem. GrandioSO x-tra is also available in a universal shade with an especially short polymerisation time of only 10 seconds.

#### Durable and reliable due to low water absorption

Low water absorption is an important precondition for long-lasting restorations with stable volume, which modern composites generally fulfil. However, in this important area as well, GrandioSO x-tra manages to achieve even better values and, with water absorption of only 10  $\mu\text{g}/\text{mm}^3$ , it is in a class of its own. Since discolouring substances can also penetrate into the restoration when water is absorbed, GrandioSO x-tra also shows its strengths here – for restorations that are reliable and aesthetic over the long term.

#### High radiopacity

With its radiopacity of 420 %Al, GrandioSO x-tra offers a very sharp contrast to the dental hard tissue as well as other restorative materials. This allows very good visibility on the x-ray and optimal monitoring – another benefit of GrandioSO x-tra.



Source: In-house measurement, 2017

### Clinical Case



Old amalgam restoration for replacement



Prepared class II cavity



Restoration with GrandioSO x-tra in increments up to 4 mm



GrandioSO x-tra combines aesthetics with the efficient working of a bulk fill material

Source: Dr. Walter Denner, Fulda / Germany

# Grandio®SO x-tra

## AESTHETIC NANO-HYBRID BULK RESTORATIVE MATERIAL

### Indications

Class I and II posterior restorations

Base in class I and II cavities

Class V restorations

Locking, splinting of loose teeth

Repairing veneers, enamel defects and temporary C&B-materials

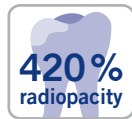
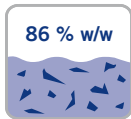
Extended fissure sealing

Restoration of deciduous teeth

Core build-up

### Advantages

- Quick and aesthetic posterior restorations
- Higher level of hardness than other bulk fill composites – on the surface, as well as at a depth of 4 mm
- Very high filler content (86 % w/w) and extremely low polymerisation shrinkage (1.4 % by volume)
- In shades A1, A2, A3 and universal
- High shade stability
- Excellent handling and simple high-lustre polishing procedure



### Presentation

REF 2599 Syringe 5 × 4 g A3

REF 2719 Caps 80 × 0.25 g A3

REF 9301 Dispenser – Caps



Shade	Syringe 4 g	Caps 16 × 0.25 g
Universal	REF 2595	REF 2714
A1	REF 2596	REF 2715
A2	REF 2597	REF 2716
A3	REF 2598	REF 2717

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