



Grandio<sup>®</sup>SO Unlimited

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*Unlimited*

UNIVERSAL HIGH-PERFORMANCE-COMPOSITE  
WITH 4 MM LAYER THICKNESS

# Grandio®SO Unlimited

## UNIVERSAL COMPOSITE WITH 4 MM LAYER THICKNESS

While aesthetic universal composites have to be layered and polymerised in 2 mm increments, which is complicated, bulk-fill composites offer the advantage of application into the cavity in increments of up to 4 mm. However, due to their insufficient aesthetics, bulk-fill composites are normally only used for the posterior region. VOCO has now resolved this issue with the new universal composite GrandioSO Unlimited. The aesthetic material can be applied into the cavity in 4 mm increments and is indicated both for the anterior and posterior regions. As a result, dental practices are only missing a packable universal composite for their day-to-day work!

With this expansion of the GrandioSO product family, which has been tried and tested for over a decade, VOCO is setting a new standard for universal composites.



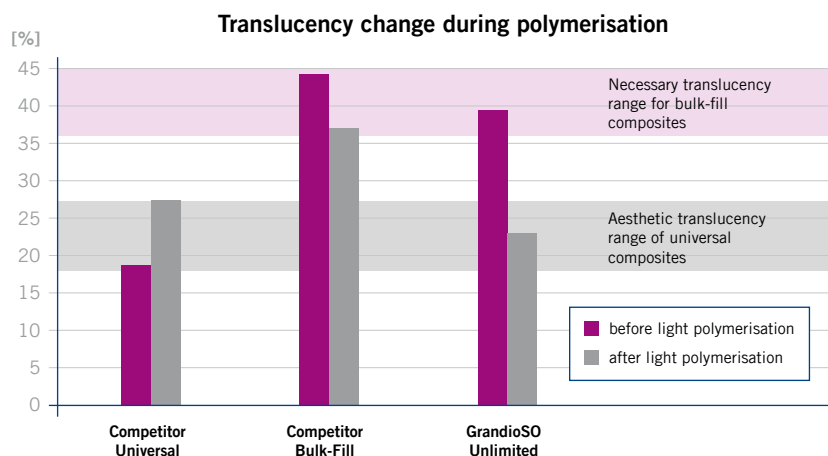
### The universal composite without layers (up to 4 mm) thanks to Visual-Transformation-Technology (VTT)

In an uncured state, the material is so translucent that it enables a reliable depth of cure of 4 mm. During light polymerisation, a visual transformation (Visual-Transformation-Technology) takes place, whereby the translucency of the material visibly decreases and the desired shade is achieved at a level of opacity that matches the natural tooth. The result is an aesthetic material for the anterior and posterior regions, which can be applied into the cavity in layers of 4 mm thanks to the special technology.



Disc specimen of GrandioSO Unlimited (Cluster-Shade A3) before the light polymerisation (left) and after light polymerisation (right)

Source: VOCO GmbH, 2025



Source: Internal measurement, VOCO GmbH

The illustration on the left shows the translucency of universal and bulk-fill composites before and after light polymerisation in comparison to GrandioSO Unlimited. Due to the Visual-Transformation-Technology (VTT), only GrandioSO Unlimited falls within the necessary translucency range of bulk-fill composites, which enables a depth of cure of 4 mm, as well as the aesthetic translucency range of universal composites.

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## SIMPLIFIED SHADE SYSTEM WITH CLUSTER-SHADES

### The determination of the natural tooth shade – a complex procedure

Finding the optimal shade is often not that easy. One of the most common methods to define the tooth shade is the use of shade guides. Compared to the variety of shades that a natural tooth has (see illustration on the right), a shade guide can only show a limited colour spectrum, which can lead to an incorrect shade selection.

GrandioSO Unlimited uses five different Cluster-Shades, each bundling several VITA<sup>®</sup> classical shades. This provides adaptation to the natural colour gradient of the tooth as well as more efficient and easy shade selection.

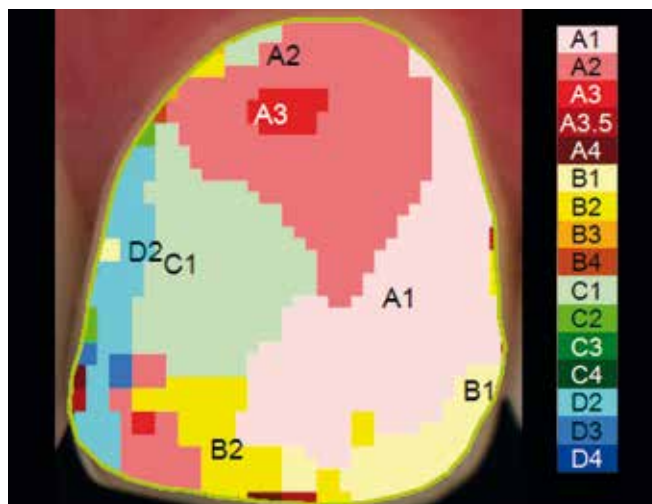


Image of tooth 21 taken with a spectrophotometer.

Source: Prof. Dr. Felix Krause, RWTH Aachen University Hospital (Germany)

### Cluster-Shades

GrandioSO Unlimited	Light polymerisation 10 sec.*													20 sec.*		
	A1				A2		A3			A3.5				A4		
VITA <sup>®</sup> classical	A1	B1	C1	D2	A2	B2	A3	B3	D4	A3.5	C2	C3	D3	B4	A4	C4

### Special shades

10 sec.*	20 sec.*
Bleach	Opaque

\*  $\geq 1200 \text{ mW/cm}^2$

- Thanks to the simplified shade system, all 16 VITA<sup>®</sup> classical shades can be covered with only five Cluster-Shades. This means that you are optimally positioned for your everyday practice with only five shades and can thus considerably streamline your inventory.

- For special clinical situations: For example, covering with the opaque shade can be helpful in cases of severe discolouration.

### Clinical case: Direct veneers



Source: Dr. Ash Soneji, Queen Square Dental Clinic, Bristol (UK)

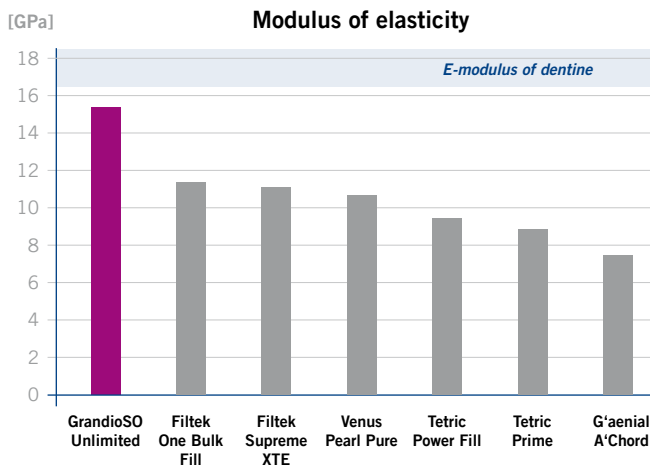


# Grandio®SO Unlimited

## THE HIGH-PERFORMANCE-COMPOSITE FOR HIGHEST STABILITY AND STRENGTH

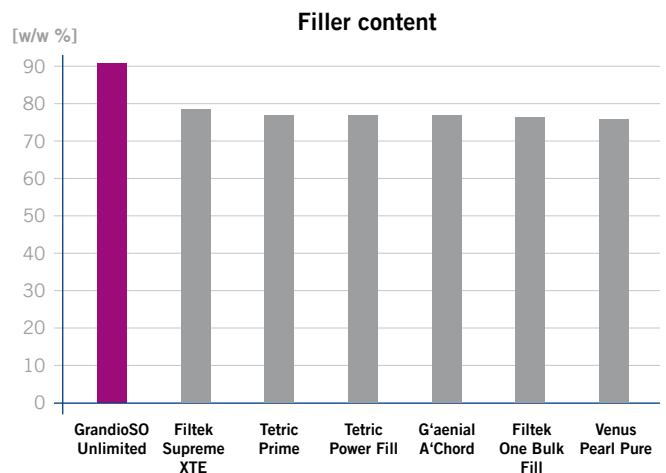
Just like the tooth itself, restorative materials are constantly exposed to recurring and extraordinarily high chewing forces. In order to withstand these stresses, special attention was paid to maximising the stability and strength of the material during the development of GrandioSO Unlimited.

The information on the filler content shows that GrandioSO Unlimited is the material of choice. With an impressive value of 91 % by weight, the material is one of the most highly filled composites on the market and thus sets new standards in terms of stability and strength, as demonstrated by the compressive strength of 333 MPa and the surface hardness of 85 VHN.



Source: Internal measurement, VOCO GmbH

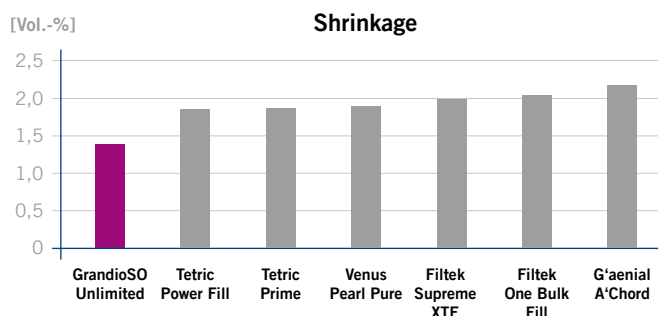
Increments of 4 mm mean that a relatively high proportion of the composite surface is in contact with the pre-treated cavity, which brings the issue of shrinkage into focus. GrandioSO Unlimited scores highly here with a very low shrinkage of 1.44 % by volume and the associated low shrinkage stress. The risk of marginal gaps and marginal discolouration can therefore be significantly reduced.



Source: According to manufacturer

The modulus of elasticity is a measure of the resistance of a material, in this case the restorative composite, to deformation.

With a modulus of elasticity of 15.7 GPa, GrandioSO Unlimited shows by far the most dentine-like elasticity behaviour of the composites tested.



Source: Internal measurement, VOCO GmbH

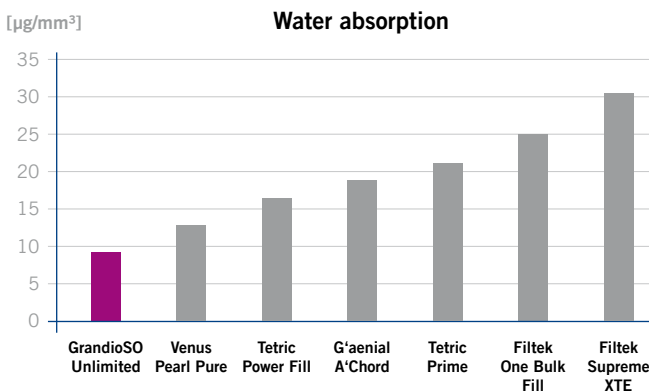
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## EXCELLENT HANDLING AND AESTHETICS

In addition to maximum strength and stability, ease of handling and aesthetics are of crucial importance. GrandioSO Unlimited is therefore excellent to work with. The material does not stick to the instrument, is stable and is characterised by a smooth consistency. As a result, it can be adapted and modelled perfectly to the cavity walls. Despite the uniquely high surface hardness, the universal composite can be easily polished to a high lustre using the classic polishing protocol and ensures first-class long-term results.

### Brilliant aesthetics

GrandioSO Unlimited impresses with its low water absorption of 9.1 µg/mm<sup>3</sup> and a resulting high colour stability. This guarantees highly aesthetic long-term results, as the absorption of substances that can lead to discolouration is reduced to a minimum.



Source: Internal measurement, VOCO GmbH

### Exceptional visibility

GrandioSO Unlimited is extremely radiopaque. With a radiopacity of unrivalled 900 % Al, it provides an extraordinary contrast to the tooth structure and other restorative materials.



Source: Dentist Dierk Thalmann, Cuxhaven (Germany)



I was very humbled to have been one of the first dentists in the world to use this product and VOCO have done it again. They have revolutionised the way I approach my clinical practice! GrandioSO Unlimited is an exceptional next generation of resin composite which has everything you could ask for – an easy shade matching protocol with phenomenal aesthetics, excellent polishability and it handles like a dream!

Dr. Ash Soneji, Queen Square Dental Clinic, Bristol (UK)



Prepared cavities



Final result

# Grandio®SO Unlimited

## UNIVERSAL COMPOSITE WITH 4 MM LAYER THICKNESS

### Indications

- Class I to V restorations
- Reconstruction of traumatically damaged anteriors
- Facetting of discoloured anteriors
- Correction of shape and shade for improved aesthetic appearance
- Locking, splinting of loose teeth
- Repairing veneers
- Restoration of deciduous teeth
- Core build-up under crowns
- Composite inlays

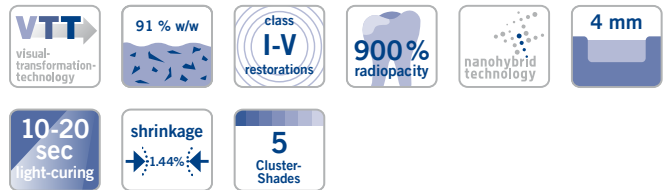
### Presentation

- REF 6257 Trial pack  
10 × 0.3 g Caps (2 each of A1, A2, A3, A3.5, A4), 10 × Futurabond U *SingleDose*, shade card, accessories
- REF 6258 Syringe 5 × 4.5 g  
(A1, A2, A3, A3.5, A4), shade card
- REF 6270 Caps 75 × 0.3 g  
(15 each of A1, A2, A3, A3.5, A4), shade card

Refills	A1	A2	A3	A3.5	A4	Opaque	Bleach
Syringe 4.5 g	6259	6260	6261	6262	6263	6264	6265
Caps 15 × 0.3 g	6271	6272	6273	6274	6275	6276	6277

### Advantages

- **Universal:** For high aesthetic demands in the anterior and posterior region
- **No layering:** Up to 4 mm layer thickness
- **Excellent handling:** Outstanding sculpting and polishing properties
- **High-Performance-Composite:** 91 % filler content by weight for maximum stability and strength
- **Simplified shade system:** All 16 VITA® classical shades can be covered with just 5 Cluster-Shades
- **Efficient:** Significant streamlining of the inventory



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