



GrandioSO

Flowables

FLOWABLE NANO-HYBRID RESTORATIVE MATERIAL
LOW VISCOUS – MEDIUM VISCOUS – HIGHLY VISCOUS



Grandio®SO Light Flow · Flow · Heavy Flow

PICK THE RIGHT FLOW – WITH THE FLOWABLES OF THE GRANDIOSO FAMILY

With the packable GrandioSO, VOCO established the most tooth-like filling composite on the market. Based on the same technology we offer you three different viscosities with our flowables: the low viscous GrandioSO Light Flow, the medium viscous GrandioSO Flow and the highly viscous GrandioSO Heavy Flow.

Flowable composites have the reputation of filling even the smallest cavities well, but they cannot keep up with the packable composites in regards to load and edge stability. With the flowables of the GrandioSO family we offer you both, the highest level of application comfort that you are used to from a flow material, as well as the best physical properties, which you previously only knew from packable composites.

A wide range of applications for tooth-like and permanent restorations

Depending on the clinical situation or personal preference, the GrandioSO Flowables enable with their different viscosities the optimal solution in each case.

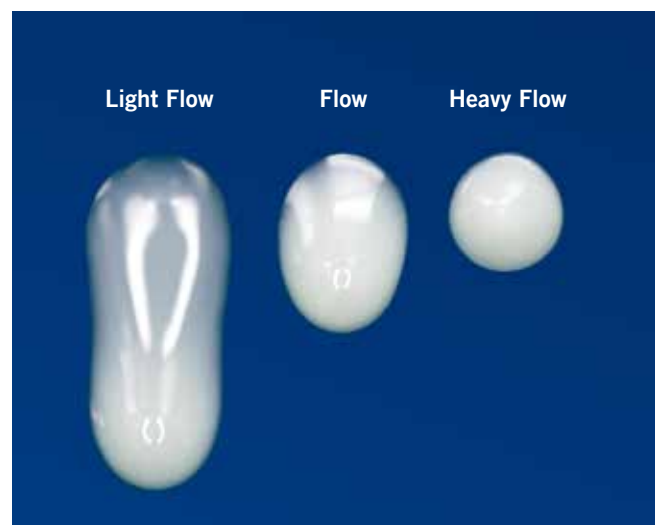
For precise and pinpoint application, **GrandioSO Light Flow** is recommendable. Due to its extra-fine cannula, the low viscous composite is particularly suitable for hard-to-reach areas and small cavities and, despite its high flowability, can convince with an extraordinarily high filler content of 76 % w/w.

Even the medium viscous **GrandioSO Flow** with its filler content of 81 % w/w offers a perfect flow behaviour and is therefore indicated for a wide range of applications.

In addition to class I-V restorations, the material is ideal for linings or extended fissure sealing and, with 13 shades, enables excellent aesthetics for long-term restorations.

The universal, highly viscous **GrandioSO Heavy Flow** with its filler content of 83 % w/w is indicated for all cavity classes and scores above all with its high stability. As shown in the figure below, the material enables a precise application without undesired runoff and is optimal for class V restorations.

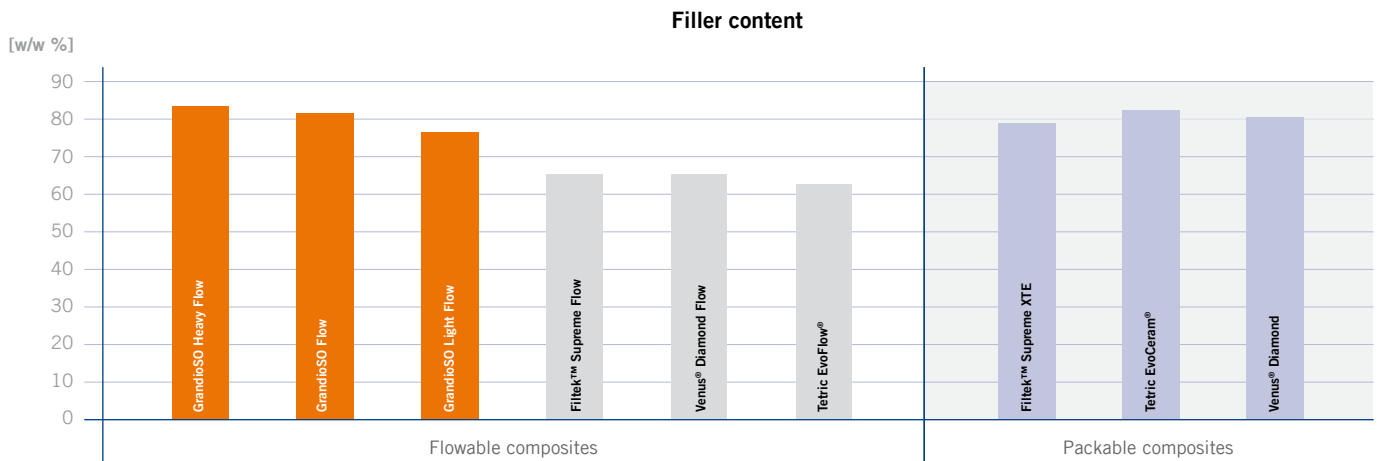
Flowability in comparison on vertical plane



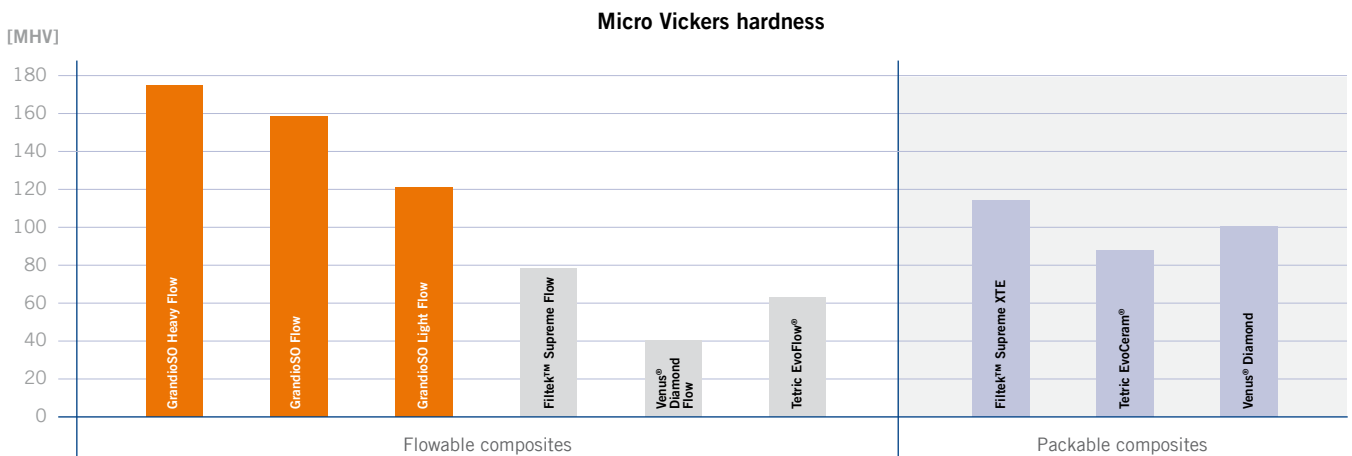
A flowable and at the same time strong material

All three flowables of the GrandioSO Family are flowable filling materials based on nano-technology. As with the tooth-like GrandioSO, functionalised SiO₂ nano particles are combined with glass particles and a special resin matrix. In this way, filler contents of over 80 % w/w can be achieved, which were previously only found in packable composites. In addition to the filler content, all three flowable composites not only show equal but also even superior physical property values in Micro Vickers hardness, modulus of elasticity and

flexural strength, compared to packable composites. Due to this performance, GrandioSO Flow and Heavy Flow can be used without restriction for all cavity classes – including those with masticatory loads. GrandioSO Light Flow, on the other hand, scores with physical properties at a high flowability that are on a par with materials of medium viscosity and thus offers excellent handling, especially with small cavities.




Source: information provided by the manufacturer / literature



Source: D. Behrend, University of Rostock, report to VOCO

Filtek Supreme Flow, Venus Diamond Flow, Tetric EvoFlow, Filtek Supreme XTE, Tetric EvoCeram and Venus Diamond are not registered trademarks of VOCO GmbH.



Cannula finer
than a periodontal
probe



GrandioSO

Light Flow

THIN-FLOWING, PRECISE AND HIGH-STRENGTH

Filling small cavities and the repair of defects are recurring tasks in your dental practice. The primary goal is minimally invasive treatment to minimise the loss of healthy tooth substance. Do you require a highly flowable material for these precise applications, which at the same time displays the familiar excellent properties and resilience of a packable restorative composite?

To meet this requirement, VOCO has expanded the proven GrandioSO product range with a low-viscosity nano-hybrid composite – GrandioSO Light Flow. VOCO's flowable composite is thin-flowing, precise and high-strength.

Extra fine cannula allows precise application

Every pack of GrandioSO Light Flow includes two types of cannula with different diameters. The choice is yours: we recommend the extra-fine cannula (cannula type 45) for precise and pinpoint application as required in the repair of fillings, for example. This cannula is considerably smaller than a periodontal probe and thus particularly

recommended for hard-to-reach areas and minute cavities. Also thanks to the fine cannula, excess residues are avoided and thus work can be completed using less material overall. In contrast, if you require more material for application over a greater surface area, such as lining the floor of a cavity, then cannula type 44 is the right choice.

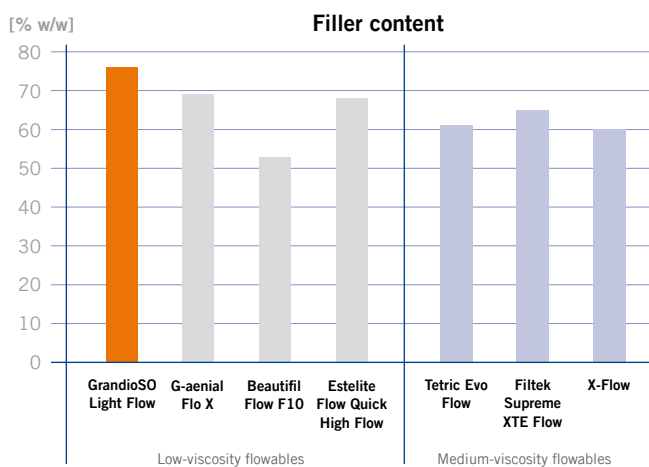
Grandio®SO Light Flow

A STRONG MATERIAL FOR A WIDE RANGE OF APPLICATIONS

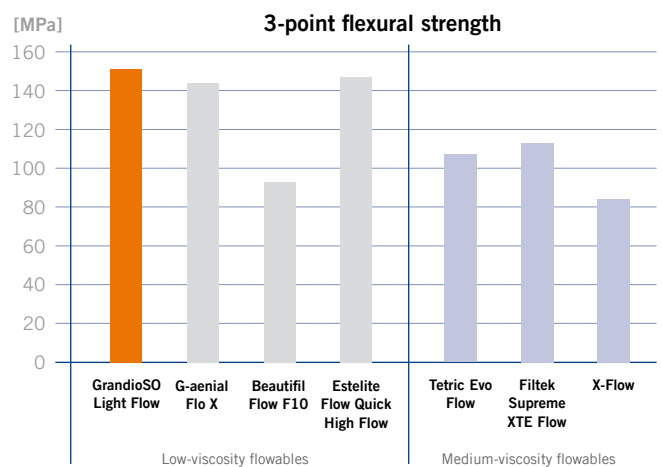
No compromises in terms of the physical properties

High flowability often has a negative effect on the stability of the material, but not in the case of GrandioSO Light Flow. Despite its excellent flowability, the product offers impressive physical properties. For example, with a filler content of 76 % by weight and a 3-point flexural strength of 151 MPa,

it effortlessly attains values similar to those of a packable composite. Furthermore, its water absorption and water solubility values are also excellent. VOCO's decades of experience in the field of nano-hybrid technology guarantee that GrandioSO Light Flow can be used safely and reliably for its wide range of indications.



Source: According to manufacturer's specifications



Source: In-house measurements

Treatment of an anterior tooth defect with GrandioSO Light Flow



Initial situation: Enamel fracture on tooth 11



Pre-treatment of enamel fracture



Filling of defect with extra-fine cannula and GrandioSO Light Flow without excess residues



Final result after finishing

Source: Dr. Walter Denner, Fulda / Germany

Restorative treatment on teeth 36 and 37 with GrandioSO Light Flow



Incipient, vestibular caries on tooth 36 and occlusal on tooth 37



Prepared and conditioned cavities



Filling of vestibular and occlusal cavities with GrandioSO Light Flow



Final result: Thanks to the extra-fine cannula and low viscosity, only polishing is required. More extensive finishing is not necessary.

Source: Dr. Walter Denner, Fulda / Germany

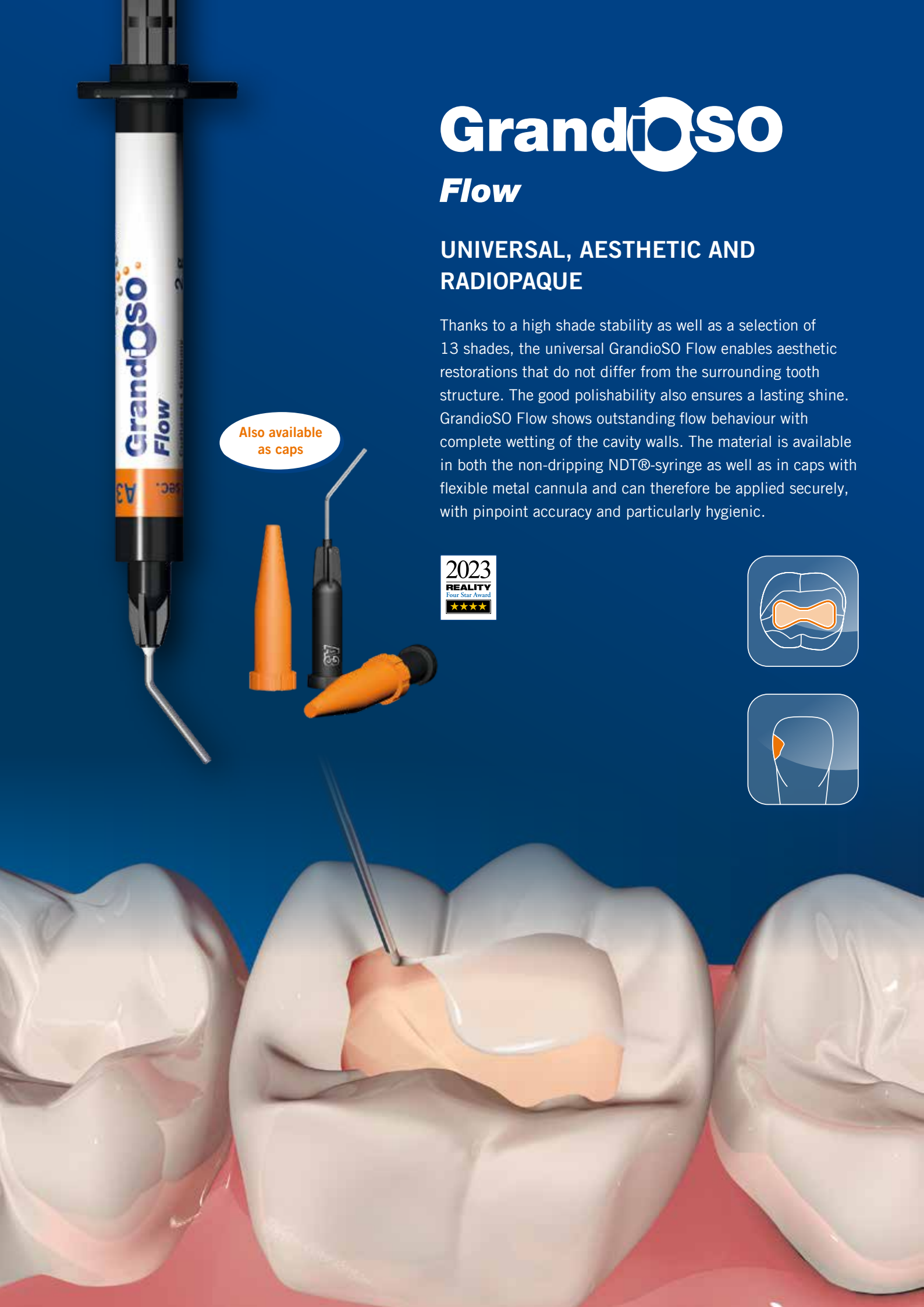
GrandioSO

Flow

UNIVERSAL, AESTHETIC AND RADIOPAQUE

Thanks to a high shade stability as well as a selection of 13 shades, the universal GrandioSO Flow enables aesthetic restorations that do not differ from the surrounding tooth structure. The good polishability also ensures a lasting shine. GrandioSO Flow shows outstanding flow behaviour with complete wetting of the cavity walls. The material is available in both the non-dripping NDT®-syringe as well as in caps with flexible metal cannula and can therefore be applied securely, with pinpoint accuracy and particularly hygienic.

Also available
as caps



Grandio®SO Flow

APPROVED FOR CAVITIES BEARING MASTICATORY LOADS

Grandio®SO Flow in use



The medium viscous GrandioSO Flow is rated in very positive terms by dentists carrying out tests, especially regarding its use in small class I and III cavities, as a lining material and for luting of veneers. In such cases it is particularly the optimum flowability of GrandioSO Flow that pays for itself. Because of its flow-on-demand properties, GrandioSO Flow

is flowable under pressure and when in motion, but becomes stable again after application. Aesthetic restorations in the anterior and posterior regions are easily obtained using the shades available in the two convenient forms of application, the NDT®-syringe and caps with extra-long metal cannula.



Source: Dr. Marcelo Balsamo, São Paulo / Brazil

The special, white-opaque (WO)

GrandioSO Flow WO is extremely radiopaque. With a radiopacity of 500 %Al it provides a very sharp contrast to the dental hard tissue and other restorative materials. The white-opaque shade also comes in extremely useful for a further physical treatment of a filling. For example, the white material clearly marks the proximity of the pulp when used as a cavity liner. GrandioSO Flow WO is also highly suitable for masking discoloured areas. The use of the shade WO for colour effects in the fabrication of highly aesthetic restorations rounds off its special range of applications.





GrandioSO

Heavy Flow

FOR MORE STABILITY

The highly viscous flowable nano-hybrid restorative material is universal applicable and has a particular stability: thus, GrandioSO Heavy Flow enables precise and excess-free application – without undesired runoff. The product is particularly effective for undercuts, proximal boxes and paragingival areas. Thanks to the high filler content of 83 % w/w it is very stable and designed for long-term restorations. The 13 shades also guarantee a high aesthetic standard.

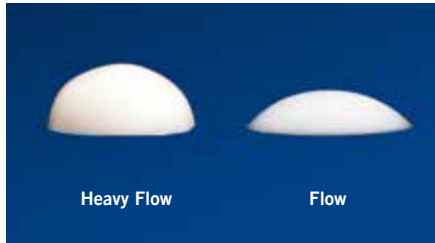
Also available
as caps



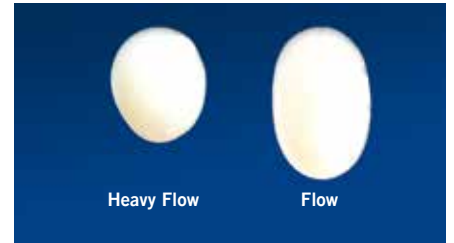
Grandio®SO Heavy Flow

APPROVED FOR CAVITIES BEARING MASTICATORY LOADS

The visible difference



◀ Stability comparison on a horizontal plane



Flowability comparison on a vertical plane ▶

Grandio®SO Heavy Flow in use

According to dentists taking part in tests, GrandioSO Heavy Flow's high stability makes it particularly effective for undercut cavities, restorations close to the marginal border, and proximal defects. GrandioSO Heavy Flow can here be applied precisely and without overflow, thereby saving you time in applying the material. In addition, the GA5 shade

now enables you to carry out aesthetic, fade-resistant cervical restorations even in older patients.

The stability of GrandioSO Heavy Flow also comes in extremely useful for processing glass fibre strips.



Typical V-shaped cervical defect on tooth 13

Source: Dr. Walter Denner, Fulda / Germany



Application of GrandioSO Heavy Flow after conditioning and bonding



Restoration immediately after polishing



Splinting of the upper anterior region with GrandTEC glass fibre

Source: Drs. Henk Altling, Groningen / Netherlands



Glass fibre embedded in GrandioSO Heavy Flow



Completed splinting

Grandio®SO Light Flow · Flow · Heavy Flow

OVERVIEW OF THE INDICATIONS


Fillings of class I - V cavities

						● = indicated	● = recommended
GrandioSO Heavy Flow	●	●	●	●	●		
GrandioSO Flow	●	●	●	●	●		
GrandioSO Light Flow	—	—	●	●	●		

Lining, blocking out undercuts, extended fissure sealing, filling of small cavities

						● = indicated	● = recommended
GrandioSO Heavy Flow	●	●	●	●	●		
GrandioSO Flow	●	●	●	●	●		
GrandioSO Light Flow	●	●	●	●	●		

Interlocking and splinting teeth, luting translucent prosthetic pieces

			● = indicated	● = recommended
GrandioSO Heavy Flow	●		●	
GrandioSO Flow	●		●	
GrandioSO Light Flow	—		●	

Grandio®SO Light Flow

FLOWABLE NANO-HYBRID RESTORATIVE MATERIAL, LOW VISCOUS

Indications

Filling / characterisation of small cavities
 Filling / characterisation of class III, IV and V cavities
 Extended fissure sealing
 Blocking out undercuts
 Lining or coating cavities
 Repairing fillings, veneers and temporary restorations
 Luting translucent prosthetic pieces

Advantages

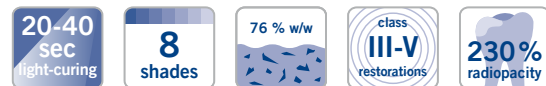
- **Low viscosity** – outstanding flow properties and therefore optimally suitable for hard-to-reach areas and small cavities
- **Extra-fine cannula** – for precise and pinpoint application, dosage without excess residues, and for material savings
- **High performance** – excellent physical properties, e.g. filler content of 76 % by weight
- **High aesthetics** – 8 shades for individual applications
- **Excellent handling** – NDT®-syringe – non-drip, compatible with all light-curing bonding materials

8 shades – The choice is yours

Light-curing 20 sec.
 at 500 mW/cm²



Light-curing 40 sec.
 at 500 mW/cm²



Presentation

- REF 2585 Set syringe 5 × 2 g (A1, A2, A3, A3.5, WO), shade guide, accessories
- REF 2144 Application cannulae type 44, 100 pcs.
- REF 2147 Application cannulae type 45, 100 pcs.

	Shade	A1	A2	A3	A3.5
GrandioSO LightFlow	Syringe 2 × 2 g	2586	2587	2588	2589
	Shade	B1	WO	OA2	Incisal
GrandioSO LightFlow	Syringe 2 × 2 g	2590	2591	2592	2593



G-aenial Flo X, Beautifil Flow F10, Estelite Flow Quick High Flow, Tetric Evo Flow, X-Flow and Filtek Supreme XTE Flow are not registered trademarks of VOCO GmbH.



Cannula finer than a periodontal probe

Grandio®SO Flow · Heavy Flow

FLOWABLE UNIVERSAL NANO-HYBRID RESTORATIVE MATERIALS, MEDIUM VISCOUS – HIGHLY VISCOUS

Indications

Fillings of Class I–V cavities
Minimally invasive filling therapy
Extended fissure sealing
Blocking out undercuts
Lining or coating cavities
Repairing fillings and veneers
Luting translucent prosthetic pieces (e.g., full ceramic crowns, etc.)
Interlocking and splinting teeth (e. g., with glass fibre strands)
Use as a base material in combination with glass fibres or similar products for fabricating semi-permanent crowns and bridges

- Safe and precise application thanks to NDT®-syringe or flow-caps with flexible metal cannula
- Excellent surface affinity with complete wetting of the cavity walls
- 13 shades for aesthetic restorations – perfectly coordinated with GrandioSO
- Extremely high radiopacity (500 %Al) of GrandioSO Flow WO for especially good contrast to the tooth substance and to other restoratives



Advantages

- Universal – can be used for all cavity classes
- Physical properties superior to those of various other packable materials, e.g. hardness, stability, abrasion resistance
- Very high filler content of over 80 % w/w
- Very good polishability and durable brilliance

Individual shades

	Shade	A1	A2	A3	A3.5	A4	B1	B2	C2	Incisal	OA2	BL	WO	GA5
GrandioSO Heavy Flow	Syringe 2 × 2 g	2684	2685	2686	2687	2688	2690	2691	2692	2694	2693	2695	2696	2689
	Caps 16 × 0.25 g	2704	2705	2706	2707	2708	2712	–	–	–	–	–	–	–
GrandioSO Flow	Syringe 2 × 2 g	2722	2723	2724	2725	2726	2729	2730	2732	2733	2734	2736	2737	2727
	Caps 16 × 0.25 g	2742	2743	2744	2745	2746	2749	–	–	–	–	–	–	–

Presentation

Grandio®SO Heavy Flow

REF 2680 Set syringe 5 × 2 g (A2, A3, A3.5, WO, GA5), shade guide, accessories

REF 2148 Application cannulae type 46, 100 pcs.

Grandio®SO Flow

REF 2720 Set syringe 5 × 2 g (A1, A2, A3, A3.5, WO), shade guide, accessories

REF 2146 Application cannulae type 41, 100 pcs.

REF 2607 Shade guide

REF 9301 Dispenser – Caps

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