

GrandiOSO Light Flow • Flow • Heavy Flow

GrandiOSO

Light Flow • Flow • Heavy Flow

Flowable Nano-Hybrid Restorative Material

LOW VISCOSITY • MEDIUM VISCOSITY • HIGH VISCOSITY



VOCO
THE DENTALISTS

GrandioSO Light Flow · Flow · Heavy Flow

THE NANO-HYBRID FLOWABLE FAMILY FOR EVERY CLINICAL SITUATION

Based on the same technology behind VOCO's tooth-like universal Nano-hybrid packable composite, GrandioSO, VOCO introduces the GrandioSO family of flowables, a new generation of flowables that match or often even exceed the physical properties of packable composites. Available in three distinct variations that offer solutions for every clinical restorative situation, the GrandioSO flowable family consists of GrandioSO Light Flow, the unique low-viscosity flowable; GrandioSO Flow, a universal medium-viscosity flowable; and GrandioSO Heavy Flow, a universal high-viscosity flowable. These three materials are not only extremely easy to apply, but also provide superior physical properties that maximize their tooth-like behavior, longevity and overall quality.

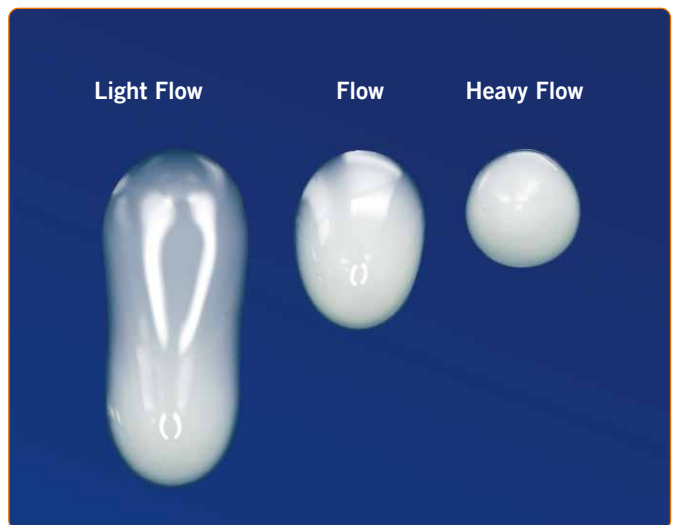
A wide range of indications with tooth-like properties and long-term performance

Whether it be personal preference or the demands of any given clinical situation, the GrandioSO flowable family has the solution. **GrandioSO Heavy Flow**, with an 83% fill rate (by weight), is a universal high-viscosity flowable indicated for Class I–V restorations. Practitioners quickly realize the value of a high-viscosity flowable when performing Class II and Class V restorations. As demonstrated in the image below, GrandioSO Heavy Flow does not slump, allowing for easy application and light-cure in Class V restorations.

GrandioSO Flow, with an 81% fill rate (by weight), is a universal medium-viscosity flowable. Indicated for Class I–V restorations and ideal as a cement for translucent prosthetic pieces such as veneers, it provides easy application and superior esthetics for long-term results. Finally, **GrandioSO Light Flow's** high fill rate (76% by weight) in combination with its extremely low viscosity and ultra-fine intraoral tip enables precise application, increased accessibility, the preservation of healthy tooth structure and high strength for increased longevity.



Flowability comparison on a vertical plane

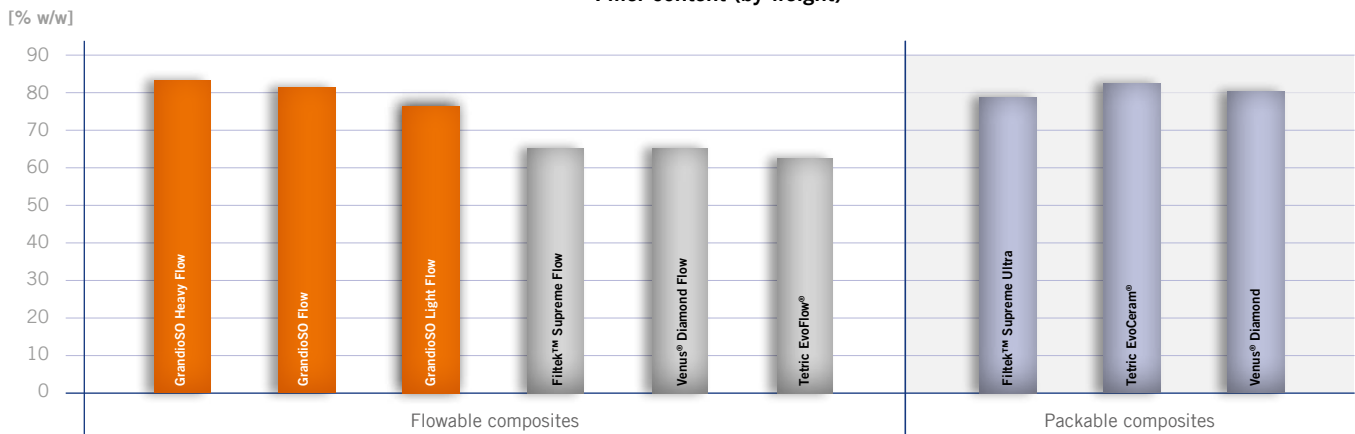


Customized viscosity delivers superior physical properties for top performance

All three GrandioSO flowable materials are based on nano-hybrid technology. Functionalized SiO₂ designer nanoparticles have been combined with glass ceramic particles and a special resin matrix to give a filler content (by weight – 83%, 81% and 76% respectively) that exceeds all conventional flowables. Such high fill rates were historically only available in packable composites and enable these flowables to attain higher physical properties than even some conventional packable composites

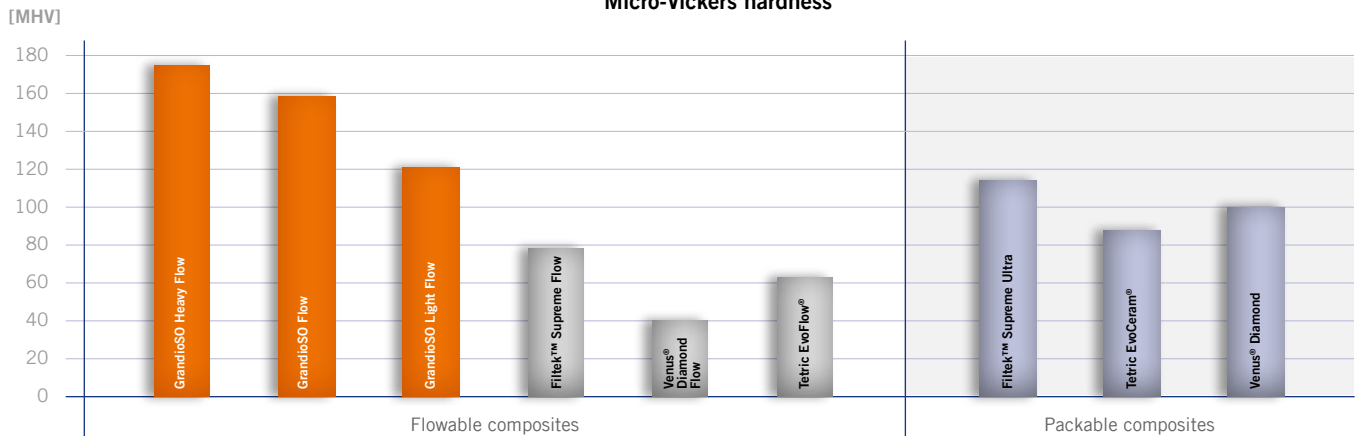
in terms of Micro-Vickers hardness, modulus of elasticity and flexural strength. Thanks to this level of performance, GrandioSO's two universal flowable composites (GrandioSO Flow and GrandioSO Heavy Flow) can be used in all cavity classes (I–V), even those that bear masticatory loads. And the low-viscosity flowable, GrandioSO Light Flow, retains great flowability and physical properties that rival medium or standard viscosity flowables for improved reliability and ease of use.

Filler content (by weight)



Source: information provided by the manufacturer / literature

Micro-Vickers hardness



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



GrandioSO

Light Flow

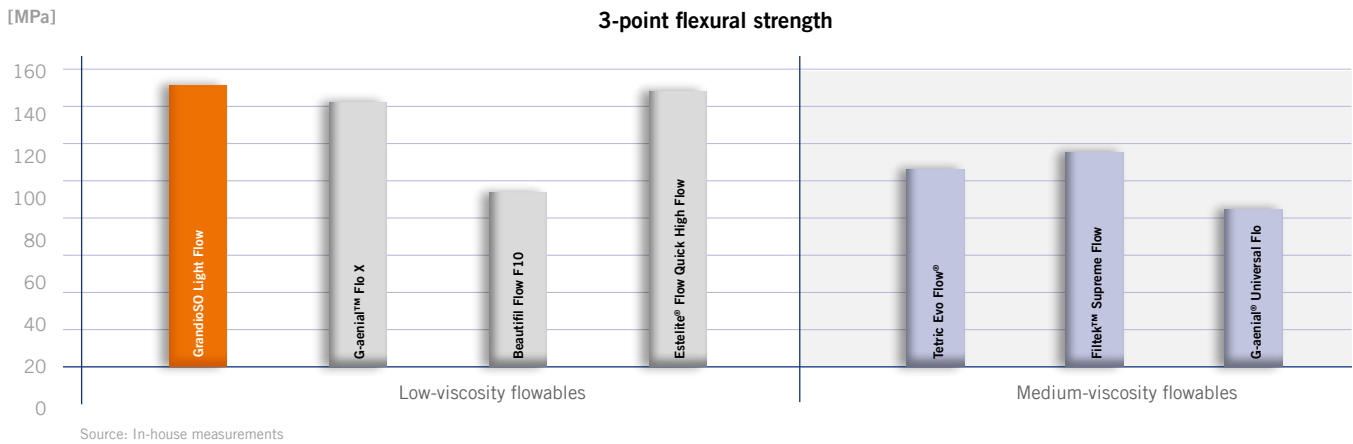
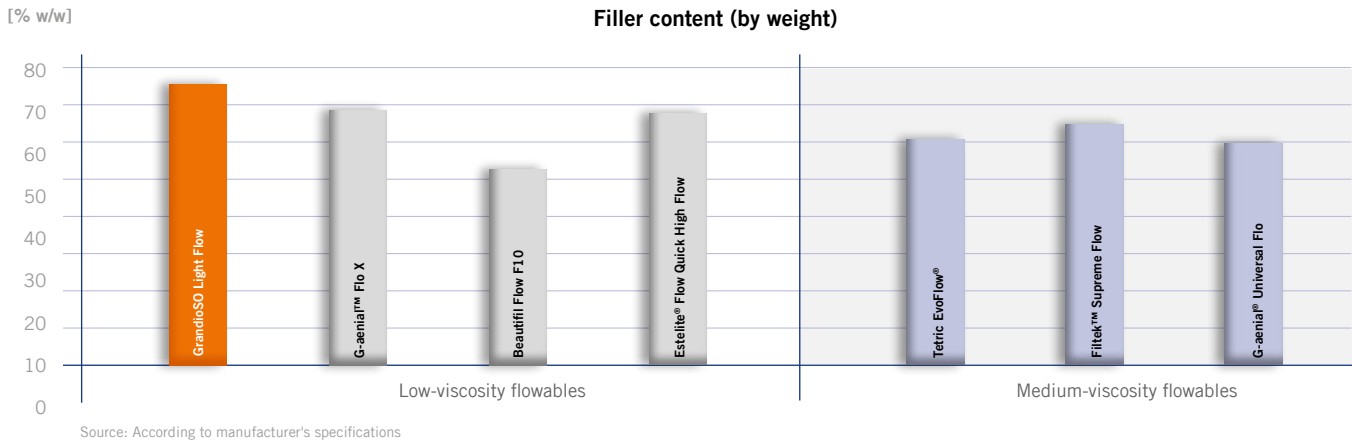
HIGH FLOWABILITY WITH STRENGTH AND PRECISION

The primary goal when restoring cavities, no matter how small, is to minimize the reduction of healthy tooth structure. For these precise applications, dentists require a highly flowable material that also displays the familiar performance properties and resilience of a packable restorative composite.

Superior physical properties without compromise

High flowability often has a negative effect on the stability of the material, but not in the case of GrandioSO Light Flow. Despite its high flowability, this material 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. Combined with its low water absorption and solubility values plus VOCO's decades of experience in the world of nano-hybrid flowable technology, GrandioSO Light Flow ensures success and reliability across its wide range of indications.



Treatment of an anterior tooth defect with GrandioSO Light Flow



Initial situation: Enamel fracture on tooth 8



Pre-treatment of enamel fracture



Filling of defect with ultra-fine intra-oral tip and GrandioSO Light Flow without excess residues



Final result after finishing

Source: Dr. Walter Denner, Fulda / Germany

Restorative treatment on teeth 19 and 18 with GrandioSO Light Flow



Cariou lesion on the lingual aspect of tooth 19 and occlusal surface of tooth 18



Prepared and conditioned cavities

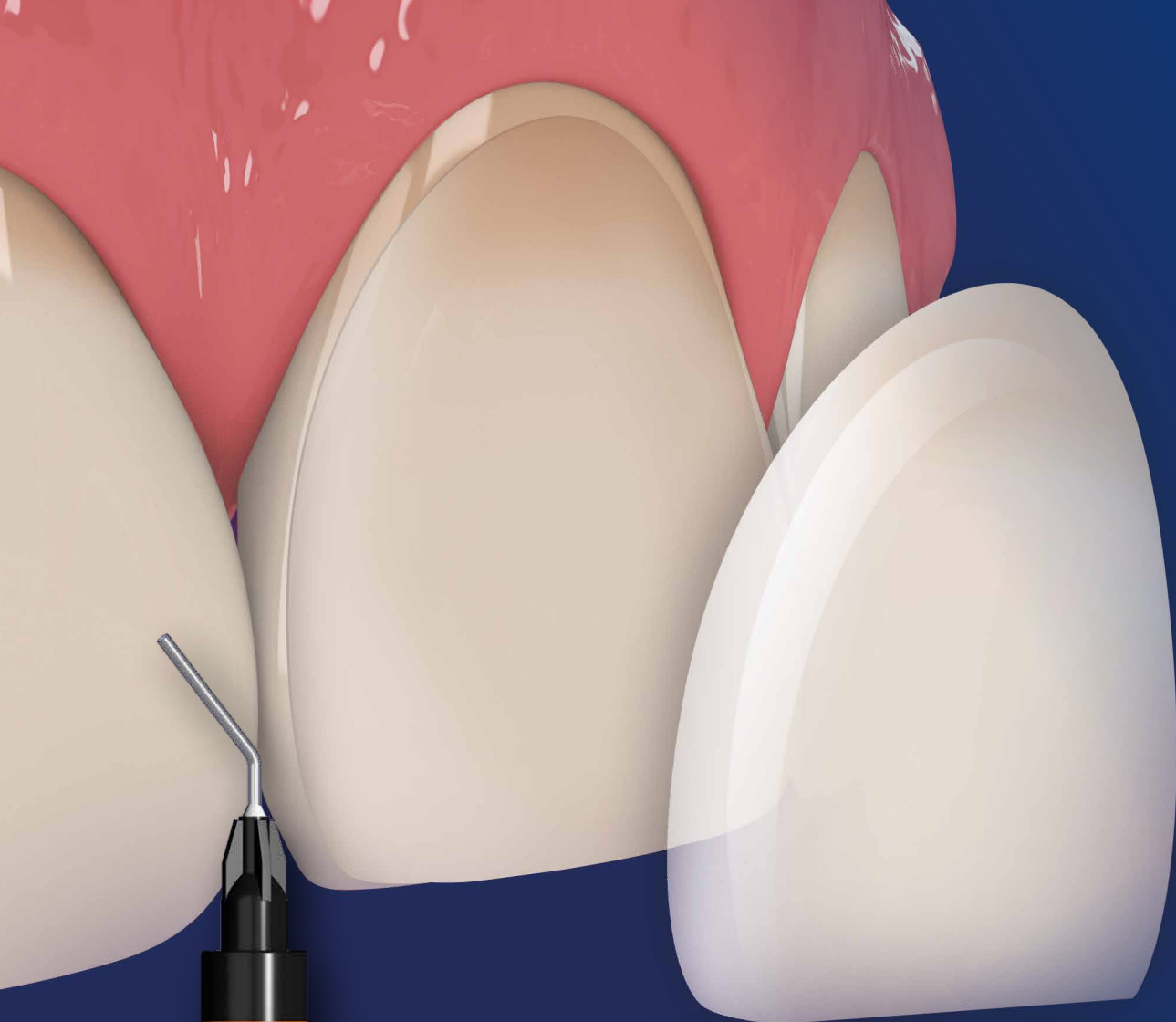


Filling of vestibular and occlusal cavities with GrandioSO Light Flow



Final result: Thanks to the ultra-fine intraoral tip and low viscosity, only polishing is required.

Source: Dr. Walter Denner, Fulda / Germany



GrandioSO

Flow

**EASY TO APPLY, ESTHETIC,
RADIOPAQUE AND UNIVERSAL**

GrandioSO Flow, the everyday flowable, is available in 13 shades and three opacities, enabling esthetic restorations that are visually indistinguishable from the surrounding tooth structure. Easy to polish with a long-lasting luster, GrandioSO Flow offers easy application via VOCO's NDT syringe (non-dripping technology) or convenient capsules.



GrandioSO Flow in use



The medium-viscosity GrandioSO Flow works very well in regard to its use in small Class I and III cavities, as a lining material, and for the cementation of veneers. Due to its flow-on-demand



properties, GrandioSO Flow is flowable under pressure and when in motion, but becomes stable again after application. Esthetic 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 SingleDose capsule with an extra-long and flexible intraoral tip.

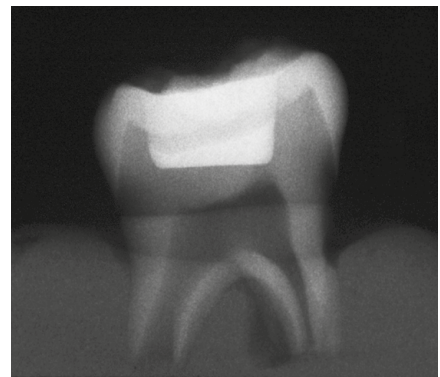


Source: Dr. Marcelo Balsamo, São Paulo / Brazil

The special, white-opaque (WO)

GrandioSO Flow WO's extreme radiopacity of 500% Al provides an incredibly sharp contrast to the dental hard tissue and other restorative materials, making it extremely useful for the further physical treatment of a filling. When used as a

cavity liner, it clearly marks the proximity of the pulp. It is highly useful for masking discolored areas, and the WO shade can be used for color effects in the creation of highly esthetic restorations.





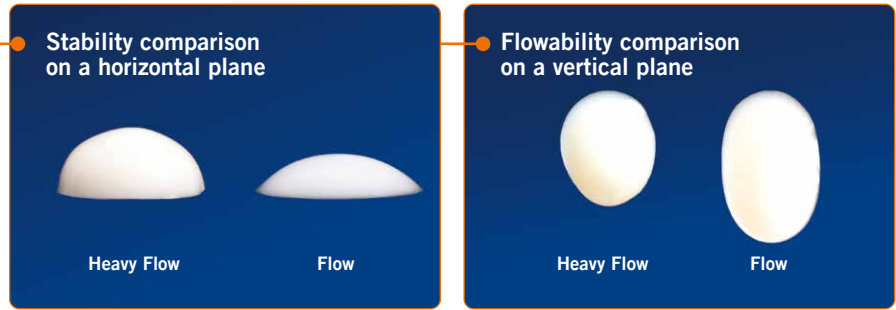
GrandioSO

Heavy Flow

HIGH VISCOSITY UNIVERSAL FLOWABLE

With its unique set of physical properties as a flowable composite, derived heavily from its nano-hybrid composition and high fill rate, GrandioSO Heavy Flow presents a new set of solutions previously unimaginable in a flowable composite. Universally indicated for Class I - V restorations and thus meant for everyday use, its high viscosity also makes it an excellent solution to age-old dilemmas associated with restoring Class II and V restorations whereby the material can flow into the desired location without slumping before an optimal light cure can be applied.

The visible difference



GrandioSO Heavy Flow in use

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 be applied

precisely and without overflow, saving time. This can be easily seen in both Class II and Class V restorations where GrandioSO Heavy Flow's high viscosity delivers great control for ideal timing

during placement and polymerization. The stability of GrandioSO Heavy Flow is also extremely useful for placing glass fiber strips.



Typical V-shaped cervical defect on 13

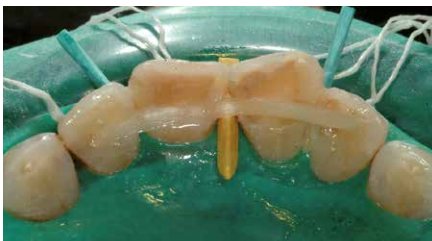


Application of GrandioSO Heavy Flow after conditioning and bonding



Restoration immediately after polishing

Source: Dr. Walter Denner, Fulda / Germany



Splinting of the upper anterior region with GrandTEC glass fiber



Glass fiber embedded in GrandioSO Heavy Flow



Completed splinting


Source: Drs. Henk Altling, Groningen / Netherlands

GrandioSO Light Flow · Flow · Heavy Flow

THE NANO-HYBRID FLOWABLE FAMILY FOR EVERY CLINICAL SITUATION

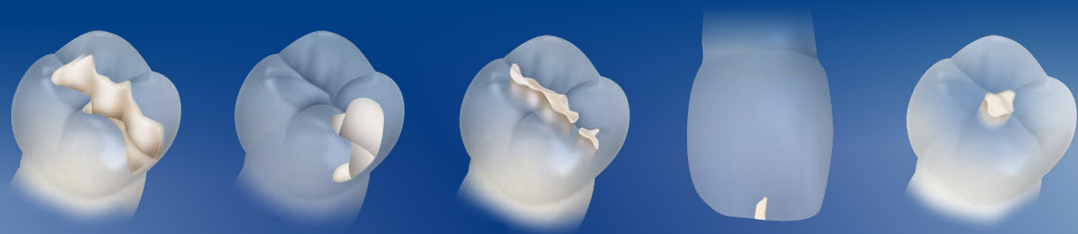
Fillings of Class I–V cavities

● = indicated ● = recommended




GrandioSO Heavy Flow	●	●	●	●	●
GrandioSO Flow	●	●	●	●	●
GrandioSO Light Flow	—	—	●	●	●

Lining, blocking out undercuts, minimally invasive filling therapy, extended fissure sealing, small enamel fractures, small carious lesions



GrandioSO Heavy Flow	●	●	●	●	●
GrandioSO Flow	●	●	●	●	●
GrandioSO Light Flow	●	●	●	●	●

Interlocking and splinting teeth, cementation of translucent prosthetic pieces



GrandioSO Heavy Flow	●	●
GrandioSO Flow	●	●
GrandioSO Light Flow	—	●

GrandioSO Light Flow

LOW VISCOSITY WITH SUPERIOR PHYSICAL PROPERTIES

Indications

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

Advantages

- **Low viscosity** – allows for outstanding flow properties for maximum accessibility of hard-to-reach areas and small cavities
- **Ultra-fine intraoral tip** – for precise pinpoint application and dosage without excess residues for material savings
- **High performance** – superior physical properties due to 76% (by weight) nano-hybrid filler content
- **High esthetics** – 8 shades that blend well due to designer nanoparticles
- **Excellent handling** – NDT®-syringe – non-dripping technology, compatible with all light-curing adhesives

8 shades – The choice is yours

Light-curing 20 sec.
at 500 mW/cm²



Light-curing 40 sec.
at 500 mW/cm²



Ultra-fine
intraoral tip

Presentation

REF 2144 Intraoral tip type 44, 100 pcs.

REF 2147 Intraoral tip type 45, 100 pcs.

Shade	2 × 2 g syringe, accessories	Shade	2 × 2 g syringe, accessories
A1	REF 2586	B1	REF 2590
A2	REF 2587	WO	REF 2591
A3	REF 2588	OA2	REF 2592
A3.5	REF 2589	Incisal	REF 2593

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



GrandioSO Flow · Heavy Flow

FLOWABLE UNIVERSAL NANO-HYBRID RESTORATIVES

Advantages

- Strong enough for occlusal surfaces
- Indicated for Class I–V restorations
- Superior physical properties due to respective 81% and 83% fill rates
- Wear resistance of a hybrid composite in comparison to conventional flowables
- Simplified filling of undercuts, approximal boxes and para-gingival areas
- Ideal for proximal and cervical areas
- Highly viscous – does not slump, easily manipulated when needed
- Volumetric shrinkage as low as 3.19% Flow / 2.96% Heavy Flow
- High radiopacity for easy X-ray identification
- 13 shades are available in NDT syringes
- Excellent polish and polish retention



Presentation

GrandioSO Heavy Flow

REF 2680 Kit 5 × 2 g syringes (A1, A2, A3, A3.5, WO), shade guide, accessories

REF 2148 Intraoral tip type 46, 100 pcs.

GrandioSO Flow

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

REF 2146 Intraoral tip type 41, 100 pcs.

REF 2607 Shade guide

Individual shades

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

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