

Control Seal

HIGHLY FILLED, TRANSPARENT FISSURE SEALANT
WITH FLUORIDE, LIGHT-CURING

Control Seal

CONTROL SEAL MAKES EVERYTHING CLEAR!

Fissure sealing has long been part of every well-conceived prophylaxis concept, the aim being to prevent the development of caries predilection sites, particularly in younger patients. Fissure sealing thus represents a cost-effective means of preserving healthy teeth in the long term.

Effective sealing is intended to protect the fissure from being colonised by cariogenic bacteria. However, the question still remains: What happens underneath a fissure sealant? The use of a high-quality, transparent fissure sealant, such as our newly-developed Control Seal, can provide the answer. The growth of an existing small site of initial caries can be arrested by effective fissure sealing, i.e. by cutting off its supply of substrate. Further progression of the caries over time can be monitored through the sealant made from Control Seal, and the best moment for therapeutic intervention can be determined, in case the caries has progressed. This makes it possible, on the one hand, to work in a substance-conserving way, while on the other hand delaying invasive therapy for as long as possible or even avoiding it. Whereas so far the majority of transparent fissure sealants have shown insufficient physical properties due to low filler content, and highly filled opaque sealants with good physical properties

do not allow visual monitoring of the dental hard substance, Control Seal combines the positive properties of transparent fissure sealants with those of opaque ones: transparency and excellent physical properties in one material. Besides visual monitoring, the transparency of the material also allows the use of laser fluorescence-based diagnostic methods, such as Dürr's VistaCam iX. VistaCam iX is a camera system designed to aid your therapy decision process. Among other things, it can detect caries underneath a fissure sealant made from Control Seal, and allows monitoring and documenting of the further progress over time. VistaCam iX depicts caries activity according to a colour scale, complemented by a numerical evaluation on a scale of 0 to >3. This principle is based on the differences in fluorescence between healthy and infected dental hard substance when the tooth is exposed to light with a wave range of 405 nm.



- Software evaluation for the detection of carious lesions and depiction of plaque utilising fluorescence
- Violet light of the LEDs stimulates the metabolic products of cariogenic bacteria and makes them glow red
- Healthy enamel radiates green light

0 - 1,5
Healthy enamel

1,0 - 1,5
Initial enamel caries

1,5 - 2,0
Deep enamel caries

2,0 - 2,5
Dentine caries

2,5 - >3,0
Deep dentine caries

Source: Dürr Dental, Germany

Control Seal

TRANSPARENT MULTI-TALENT

Tooth 27 before sealing Tooth 27 – Laser fluorescence detection Tooth 27 after sealing

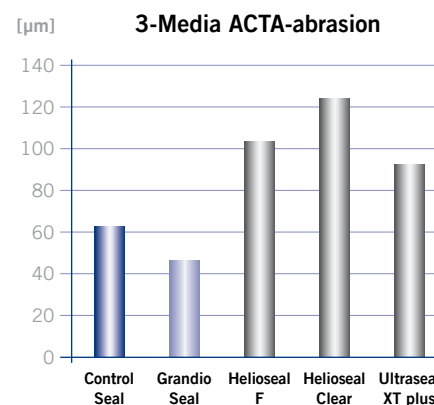
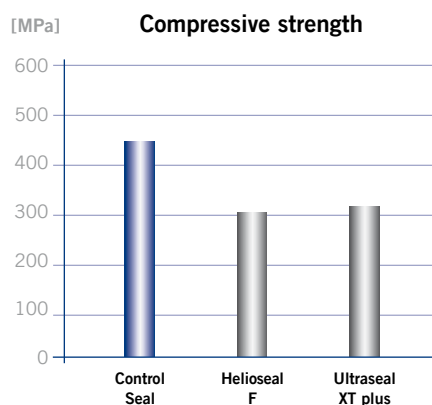
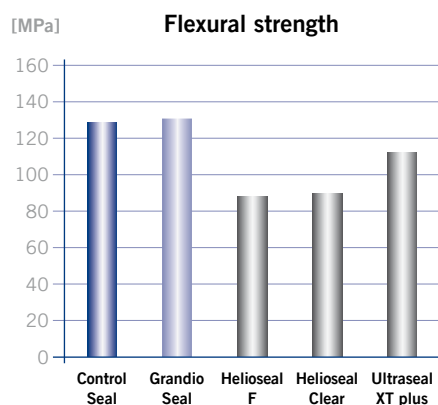
Tooth 27 six months after sealing

Laser fluorescence-based caries diagnostics reveal that the discoloured fissure on tooth 27 represents a case of initial caries. Immediately after sealing and six months later the values measured using the laser fluorescence camera are identical to those of the initial situation, confirming that the caries is stagnating, while Control Seal's functionality is unaffected.

Source: Prof. Dr. A. Braun, Marburg University

Control Seal is a fluoride-containing, highly filled fissure sealant. Its filler content is 55 % w/w. This results in outstanding physical properties, making it comparable to opaque fissure sealants in this respect. Control Seal convinces with very good compressive strength, high flexural strength and a low level of abrasion, all of which guarantee long-term retention and functionality. Exploiting the principle of thixotropy, Control Seal becomes highly flowable when under pressure, and very quickly regains stability when pressure subsides. Its ability to become highly fluid when exposed to light pressure

or slight motion is a crucial prerequisite for it to flow fully deep into the cavity without the formation of air bubbles. These qualities make Control Seal a guarantor of long-lived fissure sealants with marginal integrity. Control Seal is available in the NDT® syringe developed by VOCO. NDT® stands for "Non Dripping Technology". In interaction with the extremely fine cannula, Control Seal flows into the fissure with pinpoint accuracy and without dripping. Control Seal further convinces through very good wetting behaviour and through being easy to measure out.



Source: A.Barg, J Dent Res 89 (Spec Iss B): 3127, 2010

VistaCam iX, Ultraseal XT plus, Helioseal F and Helioseal Clear are not registered trademarks of VOCO GmbH

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HIGHLY FILLED, TRANSPARENT FISSURE SEALANT WITH FLUORIDE

Indications

- Sealing / filling of pits and fissures
- Sealing / facing of damaged enamel surfaces
- Covering of predilection sites, e.g. within the scope of orthodontic treatments
- Sealing of composite or glass ionomer fillings (protective layer against moisture)
- Sealing of deciduous teeth
- Extended fissure sealing

Advantages

- Transparent
- Suitable for laser fluorescence-based diagnostic methods
- Excellent handling
- Highest filler content among the transparent fissure sealants (55 % w/w)
- Outstanding physical properties
 - high compressive strength
 - high flexural strength
 - low level of abrasion

Presentations

- REF 1303 Set syringe 3 × 2 g, Vococid Gel syringe 3 × 2 ml, application cannulae type 45, application cannulae type 48
- REF 1304 Syringe 2 g, application cannulae type 45



VOCO GmbH
 Anton-Flettner-Straße 1-3
 27472 Cuxhaven
 Germany
 Tel.: +49 (0) 4721-719-0
 Fax: +49 (0) 4721-719-140
 info@voco.com
 www.voco.com

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