



# GC INITIAL

## Progress and success

Clinical case report by **MDT Michael Brusch**, Germany



For over 12 years now, GC has been supplying us technicians with the globally widespread Initial veneering ceramic for our daily use.

From the very outset, we have been able to use this high-quality product line to cover the entire range of applications from monochrome solutions to bioaesthetic restorations.

The system approach of the GC Initial product portfolio – from IQ One Body to polychrome layering techniques – enables dental labs to calculate very finely differentiated prices and exercise a high degree of flexibility without having to make sacrifices in terms of material quality.

The overall concept includes and caters for ongoing further development and additions in keeping up with the current market situation and the wishes of the users. For IDS 2015, and at the express request of users, GC has launched two new sensational innovations following this concept. The new veneering ceramic **Initial LiSi** and the **Initial Lustre Pastes NF - Gum Shades**.

The very compact **Initial Lustre Pastes NF - Gum Shades Set** is the perfect answer to the needs of the market whilst at the same time being a logical extension of the Lustre Pastes philosophy and the successful IQ product line.

**This compact set encompasses both the simple, monochrome and the complex polychromatic-layered gingival areas and unites the elementary parts of both areas.**

The **Initial Lustre Pastes NF - Gum Shades** are extremely easy to use and provide an almost unlimited range of options for creating natural-looking gingival areas from just a few shades.

The aesthetic result is every bit as good as a polychrome-layered gingiva.

**A particular benefit is that the Initial Lustre Pastes NF - Gum Shades are designed for universal use and are compatible with nearly all ceramics available on the market.**

In addition to the effect stains included in the set, all Initial stains are also fully compatible and can be mixed directly into the Lustre Pastes to enable even more individualisation.

Below, I would just like to highlight some of the possibilities offered by this new Gum set. As a representative example standing for all framework types and ceramics, a zirconia superstructure on GC Aadva implants using the IQ ONE BODY technique is presented here.

Only two materials are used to build up the shape and provide functionality – in this case the **Initial IQ, One Body, Layering-over-Zircon** and a gum base material.

The two ceramic materials are layered together and finished by firing.

The final aesthetics are created with the **Lustre Pastes NF - V-Shades** and the new **Lustre Pastes NF - Gum Shades**.



The framework is prepared according to the manufacturer's specifications and the Initial Zr Light Reflective Liner / Initial Lustre Pastes NF - Gum Shades or Frame Modifiers are applied in thin layers and then fired.

In a similar way to the Initial MC/Zr-FS Gum layer build-up technique which has proven itself over many years, the new **Initial Lustre Pastes NF - Gum Shades** and the **Initial Lustre Pastes NF - V-Shades** are applied at the same time in a simple **IQ** technique and fired together.



The tooth-coloured ceramic material such as Initial IQ, One Body, Layering-Over-Zircon and the gum-coloured base ceramic Gum-23 are applied and fired together.

### A truly uncomplicated, predictable and time-saving process.

The Lustre Paste colours are applied step by step and after just a single glaze firing and using just two layering materials, this system gives us excellent results!



The gingival shades and the tooth coloured areas are characterised step by step with the desired Initial Lustre Pastes NF - Gum Shades and Initial Lustre Pastes NF - V-Shades and then fired.

**A painter speaks in terms of colours, light and shade – an architect expresses himself through materials, shapes and textures – IQ combines both these forms of art in dental technology in a stunningly simple way!**

## GC INITIAL Progress and success

My second new love bears the name **Initial LiSi**.

**The new Initial LiSi veneering ceramic was developed exclusively for lithium disilicate frameworks and fine-tuned precisely for this material.**

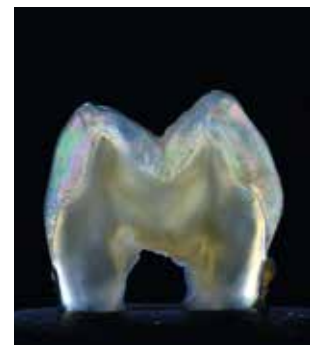
In view of the increasing popularity of this base material, GC is now launching a veneering ceramic especially for it and which offers impressive features previously unobtainable on the market in terms of handling, firing characteristics and impressive aesthetics.

**The development of Initial LiSi fulfils the users' long-standing desire for cost-effectiveness, workability and above all, aesthetics. Another innovative** feature is that there is no longer any need for large complete sets. Starting from the basic set, the user can easily put together his own customised assortment.

The familiarisation period is also guaranteed to be short, since the new **Initial LiSi** is based as far as possible on the proven handling and layering technique of the Initial concept. In the same way, if required, the familiar **Initial Lustre Pastes NF** and **Zr-FS Stains** can be applied for added individualization.

There are currently three different recommended layering/build-up variants (**Initial LiSi "One", "Classic" and "Expert"**) and a monolithic technique for lithium disilicate frameworks and crowns.

By using these techniques, we can easily fulfil our patients' most demanding aesthetic requirements. Of course, this concept embodies unlimited freedom to go beyond this.



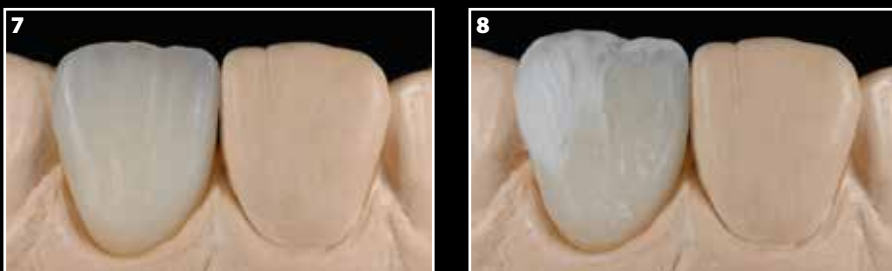
The basis is provided by **Initial LiSi "One"**, the very reliable, popular and effective variant based on the cut-back technique. **Initial LiSi "One"** is minimalist in concept and based on a first opaque firing and colouring of the only partially reduced lithium disilicate framework with a final complete layer of veneer built up with enamels. Optionally, this variant can also be refined by using opal/transpa materials. A very simple process, but one that produces impressive results.



A thin first opaque firing is recommended. Any ceramic powder from the Initial LiSi range (except COR and GL) can be used for the first opaque firing. Alternatively, the Initial Lustre Pastes NF - V-Shades can be applied thinly over the whole surface.



The final shaping is carried out with standard Enamel E-57 to E-60.



Any corrections after the first firing that may be necessary can be made with standard Enamels / Transpa materials.



## GC INITIAL Progress and success

In the second variant suggested - **Initial LiSi "Classic"** - the structure of natural dentition comes even more clearly into focus.

Through the partial use of highly fluorescent dentins, highly chromatic inside materials, opalescent enamel and transpa materials, **Initial LiSi "Classic"** here begins to exploit the exciting, fascinating interplay of light dynamics of natural teeth.



The light refracting edge of the reduced lithium disilicate crown copings is coated with highly fluorescent materials FD-91 - FD-93.



The cervical area is covered with highly chromatic INside materials. The dentin layer ...



... is applied to the whole surface and should not be too smooth. The fired dentin structure which appears restless and vibrant ...

With this build-up technique, only the most important elements of the structure of natural teeth are copied and yet, together with the Opal/Fluo/INside materials, it produces a high degree of natural light dynamics.



**Michael Brusch** trained as a dental technician from 1976-1979, after which he was employed as a dental technician working mainly with gold and ceramics. In 1986 he completed his Master Dental Technician degree in Düsseldorf and then became a laboratory director focusing on all-ceramic restoration work. In 1989 he set up his own, privately based dental laboratory specialising in functional and aesthetic prosthetics with a focus on multichromatic-additive veneering techniques for composite and porcelain, precision fabrication methods for crowns, inlays, onlays and veneers made from composite and all-ceramic materials. Brusch is an international adviser and course presenter for workshops on system-coordinating all-ceramic restorations. He has become well-known for his exceptional 3D presentations. He is an active member of the German Association for Aesthetic Dentistry (DGÄZ) and the Dental Excellence- International Laboratory Group and has been a specialist in Dental Techniques at EDA since 2008. He is considered to be an authority on the subject of all-ceramic and biomaterials and functional restoration work and regularly presents workshops and publishes papers.

## GC INITIAL Progress and success



... is built up with Dentin if necessary and then extended by adding a thin even layer overall and at the incisal edges using Clear Fluorescence (CL-F).



The final shape is built up with an Enamel mixture made from standard Enamels and Opal Enamels ...



... which gives much brighter light dynamics. Any corrections necessary after firing can, in most cases, be made with the Enamel/Opal mixture previously used.



A very easy to make, vibrant and very natural-looking restoration.



The **Initial LiSi "One"** and **Initial LiSi "Classic"** variants are also ideally preferable for posterior use. They represent an aesthetic option as an alternative to purely monolithic and only superficially coloured lithium disilicate restorations.

## GC INITIAL Progress and success

In the typical constellation of monolithic, partly veneered to fully veneered restoration illustrated below, the **Initial Lustre Pastes NF** reveal the full spectrum of the effects they can achieve, saving a considerable amount of time in comparison with conventional processes.



The Initial Lustre Pastes NF Neutral and the Initial Lustre Pastes NF Body colours are first applied over the whole of the monolithic lithium disilicate parts after these have been sandblasted at 1 bar.



The veneer surfaces are then coloured and individualised using the same Initial Lustre Pastes NF - V-Shades, which at the same time take on the function of the recommended first opaque firing.



If any further characterisation is required, additional INvivo stains can be used.



As already seen with the Initial LiSi "One" Anterior, here the partly veneered area is layered exclusively with Enamel/Transpa materials.

With this type of indication, the **Initial Lustre Pastes NF - V-Shades** have a dual function as an advanced glaze firing on the monolithic parts and at the same time as a first opaque firing on the veneered surfaces, and can be fired together. Once the monolithic surfaces have

received the final glaze firing together with the veneered parts, there is no need for time-consuming physical polishing. The fully contoured pressed monolithic restorations are directly glazed in the same firing as the first opaque firing of the veneered crowns.

The aesthetic result of this glaze firing is a welcome visible support for the parts still to be veneered. The build-up of layers in the posterior area depends on the procedures indicated in the anterior region and rewards our efforts with great results and amazing, dense surfaces.

## GC INITIAL Progress and success



The layering parameters of the Initial LiSi "Classic" are largely the same for posteriors and anteriors.





## GC INITIAL Progress and success



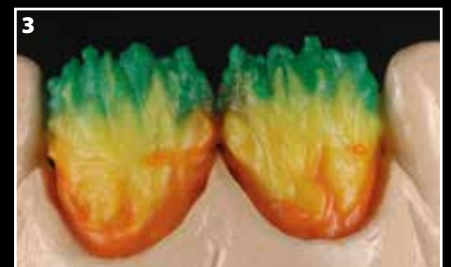
Up to this point, Initial LiSi is already a truly unprecedented class of its own!



But... even these results can be bettered... **Initial LiSi "Expert"**.

The epitome of bioaesthetics and the utmost in efficiency. Here all the parameters relevant to the biological structure of natural dentition are perfectly integrated into the layering.

I would like to use the following images to give you a brief overview of the full glory of the bioaesthetic build-up and the exceptional result.



# GC INITIAL Progress and success



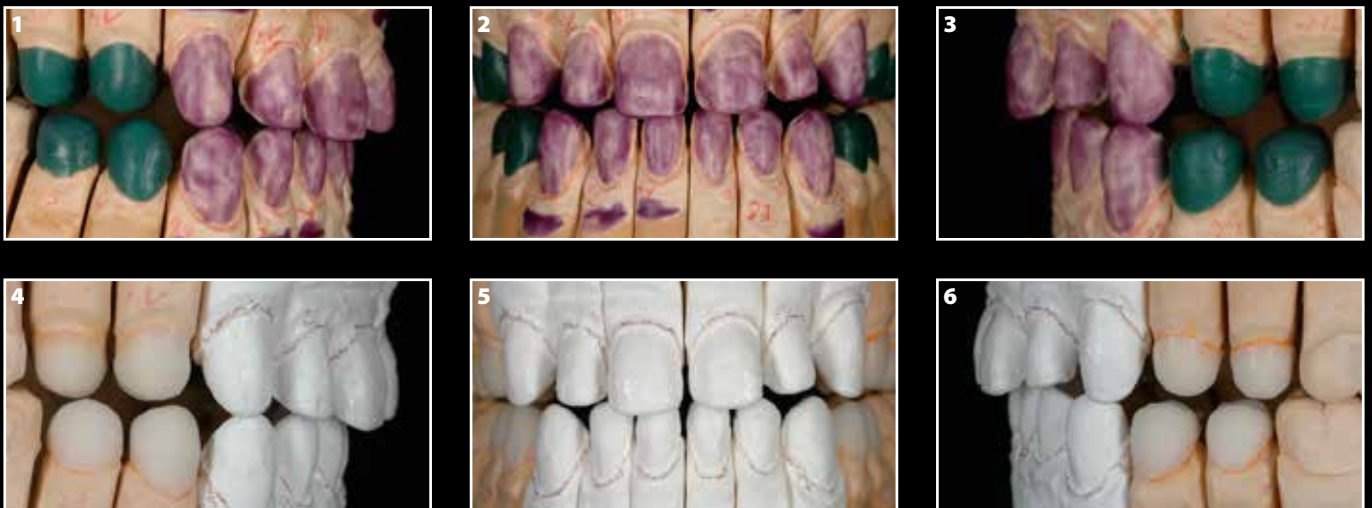
Next to Nature

## GC INITIAL Progress and success

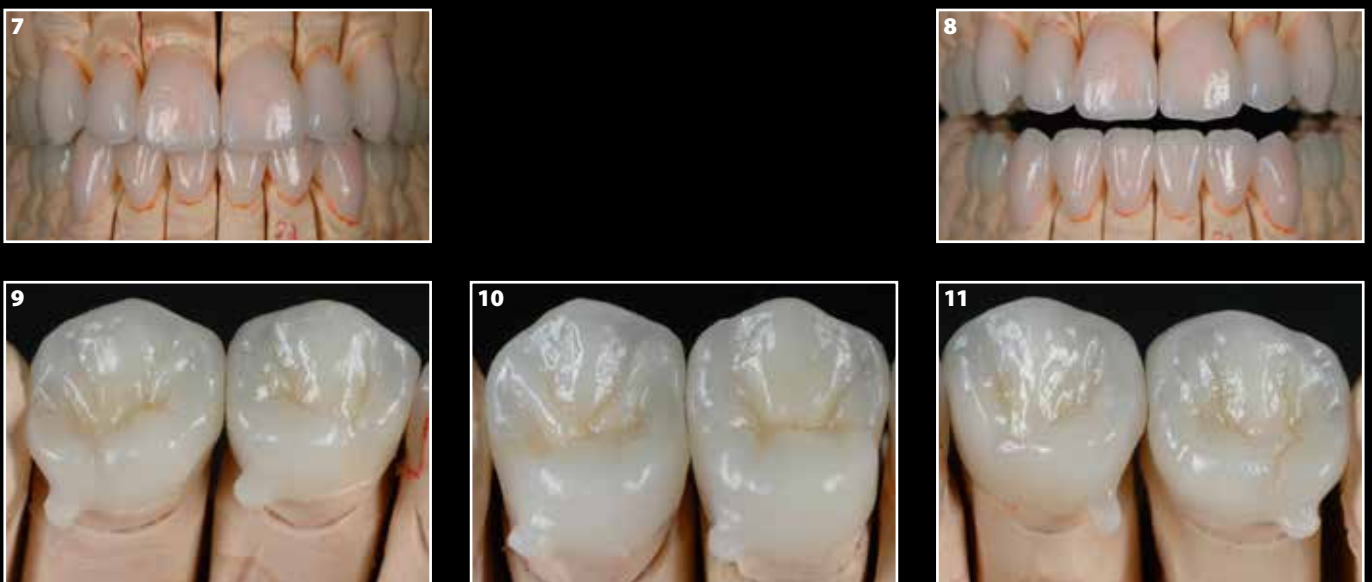
My first, very complex case, dating back to the later stages of development of **Initial LiSi**, was solved at first attempt. I was easily able to transfer my experience with other Initial ceramics to this case. But even better than the direct fabrication was the fulfilment of a lifelong dream. All the restorations shown here were made with the same **Initial LiSi ceramics**, including the upper/lower anterior veneers, which were fired onto a fireproof material (GC COSMOTECH VEST)!



The dull colour and surface structure of the initial situation. The young patient suffers from amelogenesis imperfecta, a malformation of the enamel which is in most cases hereditary.



The upper and lower anteriors received minimal invasive treatment but a hybrid preparation had to be chosen for the premolars. Upper and lower anteriors were prepared for the fabrication of sintered ceramic veneers, duplicated and then fabricated again from a fireproof material (GC COSMOTECH VEST).



The result of an Initial LiSi "Expert" layering in the anterior area and a an Initial LiSi "Classic" build-up for the premolars.

Before ...



...after.



A very natural, vital improvement of the initial situation and a delighted patient. The first difficult case was easily solved.



**This just shows how simple the life of a dental technician can be.**

Do you want more ...? I cordially invite you to the Initial World of GC. It is worthwhile getting to know this fascinating combination of high quality materials and almost unlimited aesthetics.

The handling and layering of the new Initial LiSi harmonises perfectly – and this is something we are especially proud of – with the fabrication techniques used for all other Initial ceramics with great success over the last 12 years.

**From low-cost to high-end, from metal-based restorations to the new Initial LiSi, we can keep up the rhythm of our daily work and focus on creating fine restorations because we have a consistently perfect basis to work on.**

**Such reliability enables this concept to fulfil the highest requirements a system can offer a dental technician.**