

Zirconia solutions

Strong solutions for beautiful teeth

initial
Zirconia Solutions



Since 1921
100 years of Quality in Dental



Zirconia solutions with Initial™ from GC

Nowadays there is no getting around zirconia as a material for highly aesthetic and durable prosthetic restorations. It is strong, cost-productive, fits into the digital chain and has a wide range of applications, enabling the dental technician to fabricate restorations with a long-term stability and natural aesthetics in an economical and efficient way. No other ceramic can offer the same strength as zirconia.

With the Initial Zirconia solutions, a tailored solution is offered to master every indication in an efficient way with the high quality that's expected from GC. Whether you start with a white 'canvas' with the **Initial Zirconia Disk** in three translucency levels - **ST**, **HT** or **UHT**, or with **Multilayer Elite** (multilayered zirconia) with a natural shade and translucency gradient, you can obtain a top-level aesthetic result.

Initial Zirconia Coloring Liquid adds a soft base colour or can be used to add small details or a pink base for the gums. Depending on the amount of cutback, the restorations can be finished by purely monolithic painting with **Initial Lustre Pastes ONE**, micro-layering with **Initial IQ ONE SQIN** or traditional layering with **Initial Zr-FS**. These techniques can also be combined, resulting in endless possibilities. Ultimately, the restoration can be luted with **GC FujiCEM™ Evolve** or **G-CEM ONE™**.

Be inspired by the many examples and enjoy the endless versatility of our zirconia solutions ...





Courtesy: MDT Justyna Kasta, Poland



Courtesy: MDT Patrick Freudenthal, Sweden



Courtesy: MDT Benjamin Detrez, France



Courtesy: MDT Ralf Dahl, Germany

Standard white disks in three translucencies

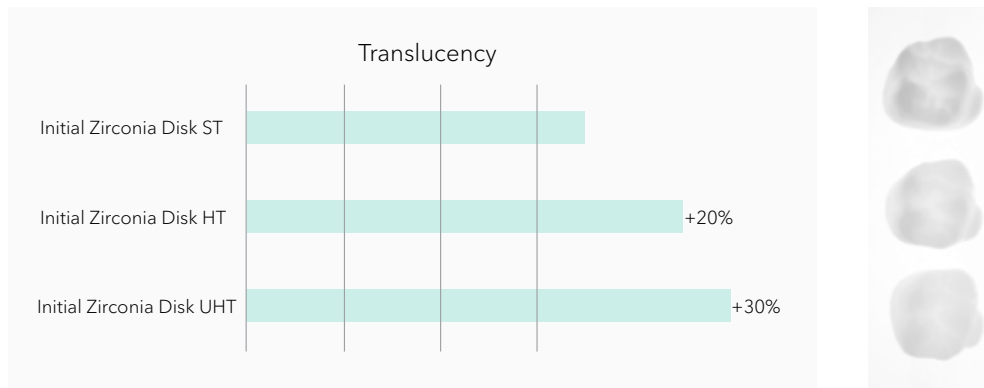
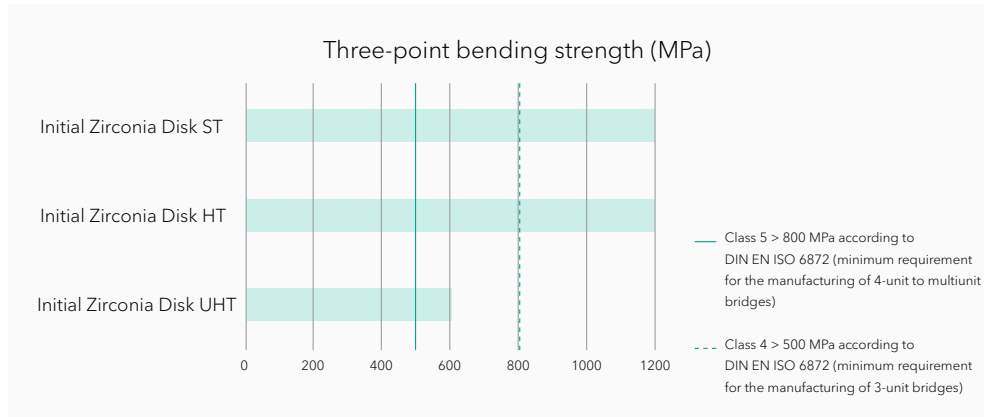


The GC Initial Zirconia Disks are well known for their high strength (up to 1200 MPa, for ST - Standard Translucency and HT - High Translucency and up to 600 MPa for UHT - Ultra-High Translucency). They exhibit excellent biocompatibility, rigidity, and optimal edge stability. Thanks to the perfect balance between strength and aesthetic possibilities, the most stunning monolithical restorations can be created with a perfect transition from the gingiva to the tooth.

Benefits at a glance

- **Three translucency levels:** natural aesthetics or strong ability to mask discoloration
- **Optimal edge stability** and millability
- Reduced inventory, can be used for **any tooth shade**
- **Customisation** with Initial Zirconia Coloring Liquid, IQ ONE SQIN and/or Zr-FS
- Choose ST or HT for **hybrid abutments** or **multi-unit abutments / full-arch restorations**

Perfectly balanced material properties



Multilayered disks for the highest standards



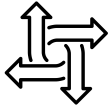
SUPERIOR AESTHETICS

True-to-nature shade and translucency gradient for anterior and posterior restorations.



HIGH STRENGTH

Classified as a Class V according to DIN EN ISO 6872 with a mean value of >1.100 MPa.



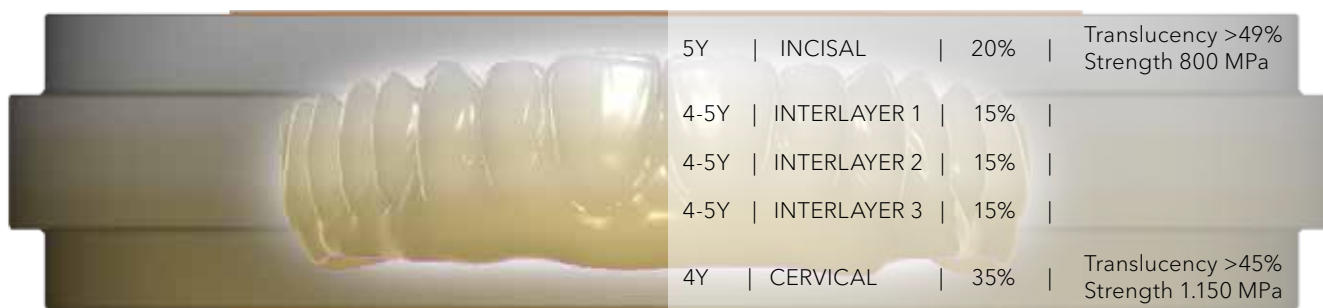
OMNI-FUNCTIONAL

Versatile and suitable for a broad range of clinical indications. Fast sintering or regular sintering.



Natural gradient

Stunningly natural: a seamless gradient from cervical to incisal, in shade as well as translucency gradients, mimicking the natural tooth structure in the best possible way.



Courtesy: MDT Stefan Roozen, Austria

Benefits at a glance

Physical properties

- Zirconium dioxide Type II Class V DIN EN ISO 6872
- Flexural strength: typical mean value >1.100 MPa
- High translucency gradient from >45% to >49%
- Fast sintering for crowns and bridges up to 3 units

- Superior aesthetics with a **combined shade and translucency gradient**.
- **High strength** throughout all layers, making it suitable for a wide range of indications.
- Limits the required finishing with a **framework in the right colour** tone.
- **Optimal synergy** with Initial Zirconia Coloring Liquid and the IQ ONE SQIN concept for high-end individualisation.
- All 16 V-shades and 3 bleach types are available in 14, 16, 20 & 25 mm thick disks with a diameter of 98.5 mm.



GC Initial Zirconia Disks

Which is the optimal zirconia for which indication? Different factors will influence your choice: aesthetic requirements, the restoration's size, the shade of the prepared tooth, ... In order to obtain the most predictable and accurate restorations, it is of utmost importance to always select the material that matches the specifications of each individual case.

	INDICATION					
	Inlay/Onlay	Veneer	Crown (Anterior/Posterior)	Hybrid abutment	3-unit bridges (incl. molars)	Multi-unit bridges (> 3 units)
Initial Zirconia Disk ST (Standard translucency)			✓	✓	✓	✓
Initial Zirconia Disk HT (High translucency)			✓	✓	✓	✓
Initial Zirconia Disk UHT (Ultra-high translucency)	✓	✓	✓		✓	
Initial Zirconia Disk Multilayer Elite	✓	✓	✓	✓	✓	✓

	PROCESSING		
	Monolithic painting	Micro-layering	Conventional layering
Initial Zirconia Disk ST* (Standard translucency)			👍
Initial Zirconia Disk HT* (High translucency)	👍	👍	👍
Initial Zirconia Disk UHT* (Ultra-high translucency)	👍	👍	👍
Initial Zirconia Disk Multilayer Elite (Colour & translucency gradient)	👍	👍	

* Note: ideally to be used in combination with GC Initial Zirconia Coloring Liquid



Courtesy: MDT Manuel Izquierdo, Spain

Initial Zirconia Coloring Liquid

The **Initial Zirconia Coloring Liquid** system consists of 12 water-based colouring liquids following the 'IQ philosophy'. It guarantees the replication of natural tooth colours and effects prior to sintering while simplifying inventory management. Simply apply the liquids onto the monolithic or anatomically reduced restoration after milling using the painting or dipping technique. Whether you start from a white or a multilayered **Initial Zirconia Disk**, the customisation options are increased and the further finishing time is reduced. This can then be done with the **Initial IQ ONE SQIN** concept, ensuring a fast, aesthetically superior ceramic finish through painting and micro-layering.



Paint or dip - Two ways to accomplish

PAINTING

Ultimate frame customisation

Precisely controlled and localised colour penetration.

Reduces the need for post-sintering colour adjustments.



DIPPING

Deep, even colour distribution

Consistent and reproducible results in a fast and easy manner.



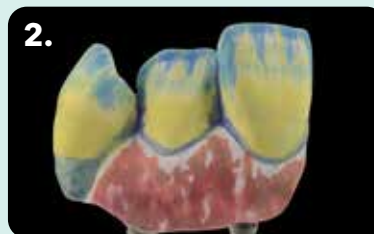
Colour your white blank - or pimp your multilayered disk



1.



3.



2.



4.

Courtesy: MDT Stefan Roozen, Austria



1.



2.

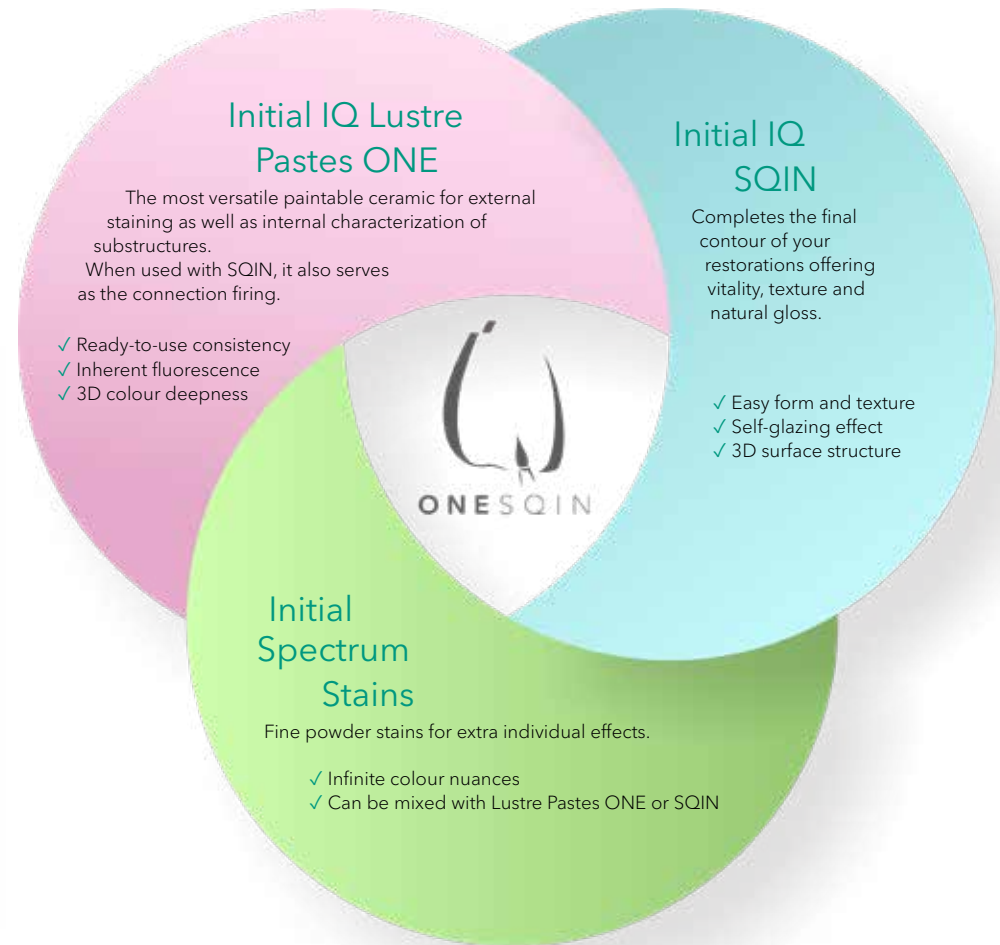
Courtesy: MDT Patrick Freudenthal, Sweden

Initial IQ ONE SQIN

With **GC Initial IQ ONE SQIN** - the paintable colour-and-form ceramic system - aesthetically appealing restorations suitable for the anterior region, can be achieved in the same simple way. Based on the GC Initial "IQ philosophy", the system consists of different ceramic materials that are perfectly adapted to be used together assuring an efficient and aesthetically convincing finalization of monolithic and buccally reduced restorations.



With **GC Initial IQ ONE SQIN** you can quickly and easily achieve high aesthetic results, comparable to conventionally layered restorations but with a significant time gain.



Courtesy: MDT Stefan Roozen, Austria

**INITIAL ZIRCONIA DISK /
INITIAL ZIRCONIA COLORING LIQUID**

As a base to start from, use the Initial Zirconia Disk Multilayer Elite or individualise the Initial Zirconia Disk HT with Initial Zirconia Coloring Liquid.



INITIAL IQ LUSTRE PASTES ONE

Use Initial Lustre Pastes ONE in the teeth area for natural light dynamics and fluorescence. The outcome reflects the final aesthetical expectation regarding colour tone and individual effects.



INITIAL IQ SQIN

The vestibular tooth shapes are completed using SQIN. The SQIN material allows optimal formation of the desired tooth shape with texture integration.



A stunningly natural outcome with natural gloss, optimal shape and texture is achieved in a single firing. Thanks to the auto-glaze effect there is no need for an additional glaze firing.



Courtesy: MDT Yasunari Araki, Japan

Release the full aesthetic potential with GC Initial Zr-FS

Initial Zr-FS is a refined feldspar based veneering ceramic for use with high strength zirconia frameworks.

The unequalled natural optical effects and increased stability after multiple firings, make it ideal for the fabrication of high demanding aesthetical crowns, complex and delicate substructures such as bridges on teeth or implants.



Courtesy: MDT Ralf Dahl, Germany



Courtesy: MDT Justyna Kasta, Poland

Both white and red aesthetics

To make gingival restorations with Initial even more aesthetic and more natural, the add-on set **Initial Zr-FS Gum Shades** meets all the requirements for highly aesthetic gingival reproductions.



Courtesy: MDT Maximiliano Paterlini, Spain



Luting of zirconia frameworks

For optimal adhesion, the intaglio surface of zirconia restorations should be gently sandblasted (25-50 µm alumina 0.15 MPa/1.5 bar is recommended).

If the retention and resistance shape are adequate, a glass ionomer cement can be used.

FujiCEM Evolve is a resin-modified glass ionomer cement with high bond strength to zirconia, without the need of any primer and is less technique-sensitive than composite cements. It is important to ensure a minimum stump height of 3 mm.

A self-adhesive resin composite cement such as **G-CEM ONE** is suitable when moisture isolation is possible.

When retention and/or resistance shape are insufficient, use the **Adhesive Enhancing Primer** or **G-Premio BOND** for increased adhesion.



Download the GC Luting Guide



Benefits at a glance

GC FujiCEM Evolve

- **Strong bonding** to tooth and restoration, especially to zirconia
- **Quick and easy:** no need for separate etching or bonding
- **Excellent marginal seal:** chemical adhesion to tooth structure
- **Moisture-tolerant:** when absolute isolation cannot be guaranteed
- **Rubbery consistency:** easy excess removal, with tack-cure option

G-CEM ONE

- **Truly universal:** for all indications and all types of restorations
- **Invisible margins:** high wear resistance and colour stability in 4 different shades
- **Adhesive Enhancing Primer** or **G-Premio BOND** can optionally be used for increased adhesion

Related products



GC FujiCEM Evolve

Resin-modified glass ionomer luting cement that combines the best in handling characteristics and physical properties for your total peace of mind. Offers the benefit of moisture tolerance, chemical adhesion to the tooth and bio-friendliness.



G-CEM ONE

Universal adhesive resin cement that offers predictable results and allows you to work in a standardised way. It can be used with an optional restoration primer for an even faster and stronger adhesion.

One quality standard for the beauty and function of nature

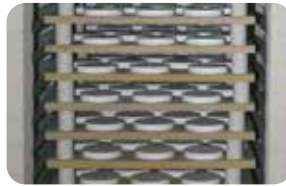
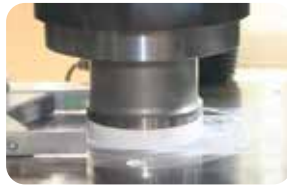
Zirconia's greatest advantage lies in its strength and resistance to repetitive loading from mastication. Its unique mechanical properties make it an outstanding restorative choice when maximum strength is a must. At the same time, a myriad of solutions exists to obtain the much desired vibrant and lifelike aesthetics, with various translucency levels and finishing options.

High-quality ceramics

CERTIFIED STRENGTH & QUALITY CONTROL

Zirconia is processed to a crystalline white powder by a complex chemical process. The addition of organic binders enables to press the powder into blanks. After production, each individual blank is submitted to an extensive quality control.

The produced blanks are subjected to very strict test procedures following established, certified processes, ensuring high quality materials with outstanding physical properties.



NATURALLY BEAUTIFUL

GC Initial's aesthetic ceramics are based on the structural form of nature and made to the highest quality. This means the optical properties of the restoration, such as diffuse reflection, fluorescence, opalescence and translucency mimic those of the natural tooth.

The composition and quality of **GC Initial IQ ONE SQIN** and **Initial Zr-FS** render a ceramic that is simple to handle and extremely stable. It is easy to contour and very technique tolerant. Even after several firings, the ceramic colour and optical properties will not change. The GC Initial aesthetic ceramics also have excellent physical properties, so final restorations are not only beautiful, but also highly durable.





Master all your challenges

GC Initial is an integrated product and colour line, which can create metal-ceramic restorations all the way to full-ceramic. No longer do you have to spend valuable time learning to use a myriad of different ceramics, from an array of manufacturers, to create the variety of restorations which may be needed.

Each GC Initial ceramic is adapted to meet the needs of its particular fabrication process and framework such as for example, its coefficient of thermal expansion (or CTE). In addition, all the shades across the entire system have been carefully harmonised. This means the aesthetics of each restoration are also in perfect harmony whatever the type created or the process used.

The GC Initial system offers complete solution lines for any type of material. Begin with one or a few and move on to the others at any time, each time using the same principles. Given its flexibility, GC Initial is the perfect choice for the laboratories of today and for what they might become in the future.

Related products



Initial IQ - One Body Layer-over-Zircon and Press-over-Zircon Feldspar-based ceramics for the "One Body Concept".



Initial Light Reflective Liner Ready-to-use liners designed for reliable shade masking of zirconia frameworks while maintaining the aesthetically relevant light effects.



Initial Firing Foam Ensures a stable fixation of objects onto ceramic firing pins and trays, enables homogeneous heat distribution and remains dimensionally stable. Easy to apply and remove.

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