

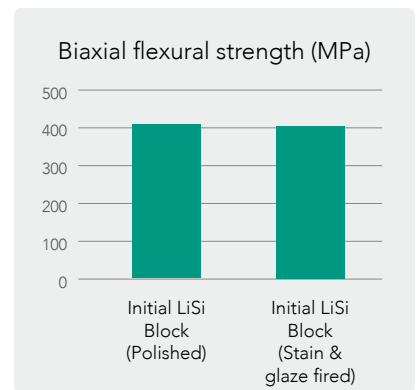
# HDM technology for CAD/CAM dentistry



In 2016, with Initial LiSi Press, GC introduced HDM (High Density Micro-ization) technology, which uses equally dispersed lithium disilicate micro-crystals to fill the entire glass matrix rather than using traditional larger size crystals. The clinical effectiveness of this technology has been proven after 5 years of clinical service<sup>1)</sup>.

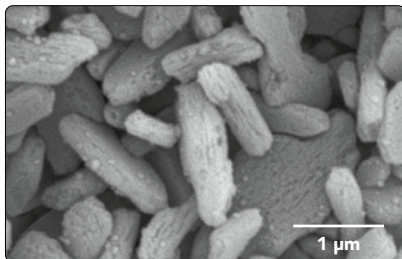
CAM dentistry by optimizing the crystal size and glass matrix stiffness. Thanks to this new technology, good machinability, marginal integrity, polishability, and wear resistance are achieved at the same time. The result is a strong and easy-to-mill block that offers the same strength with or without firing.

To bring fast solutions for one appointment dentistry, GC has further developed HDM technology for CAD/



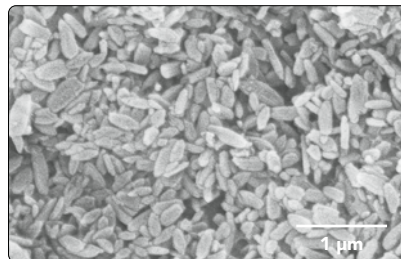
Source: GC R&D, Japan, Data on file

Conventional lithium disilicate (IPS e.max CAD)



Source: GC R&D, Japan, Data on file

HDM technology for CAD/CAM (Initial LiSi Block)



**Improved glass matrix stiffness** for high mechanical strength

**Smaller crystal** for easy milling and high wear resistance

## Workflow

(Courtesy of Prof. Matteo Basso, Italy)



Prepare



Scan



Design



Mill



Polish or characterize



Condition



Cement



Final result

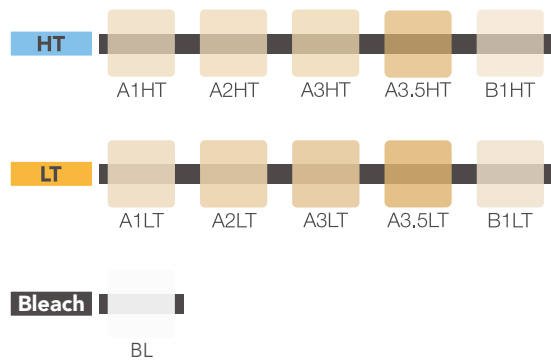
# initial™ LiSi Block

## Ordering information



Ref.	Shade	Initial LiSi Block CEREC mandrel, size 14
012919	A1 HT	
012920	A2 HT	
012921	A3 HT	
10037273	A3.5 HT	
012922	B1 HT	
012923	A1 LT	
012924	A2 LT	
012925	A3 LT	
10037274	A3.5 LT	
012926	B1 LT	
10037275	BL	

### Shade range



1) Cagidiaco EF, Sorrentino R, Pontoriero D, Ferrari M. 2020. A randomized controlled clinical trial on two types of lithium disilicate partial crowns. Am J Dent. 33(6):291-295.

### Related products



**G-Multi PRIMER**  
Universal Primer



**G-CEM ONE**  
Universal  
self-adhesive  
resin cement



**Initial IQ  
Lustre Pastes ONE**  
3-dimensional  
paintable ceramic

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# *initial*™ LiSi Block

Fully Crystallized Lithium Disilicate

## Natural beauty restored in one appointment



Since 1921  
100 years of Quality in Dental



# Natural beauty restored in one appointment

## Initial LiSi Block: new lithium disilicate block for one appointment dentistry

Initial LiSi Block is a **fully crystallized lithium disilicate block** that delivers optimal physical properties without firing. This unique block features GC's proprietary **HDM (High Density Micronization) technology for CAD/CAM dentistry** to deliver high wear resistance, smooth margins and aesthetic final results. This makes it an ideal, time saving solution for single visit chairside treatments.



- Save time, as no firing is required
- Fully crystallized lithium disilicate
- Durable aesthetic & accurate margins
- Natural opalescence

## Just Mill, Polish and Place

Initial LiSi Block can dramatically reduce process time: no need to fire, glaze, characterize and cool. This saves up to 40% in the time\* required to create your restorations, also reducing the chair time for you and your patient. You just need to mill, polish and place!

**“Even if I love to characterize Initial LiSi Block, it is perfect to polish with only a few handles and in max 5 minutes. Therefore, it’s a real & quick chairside solution.”**

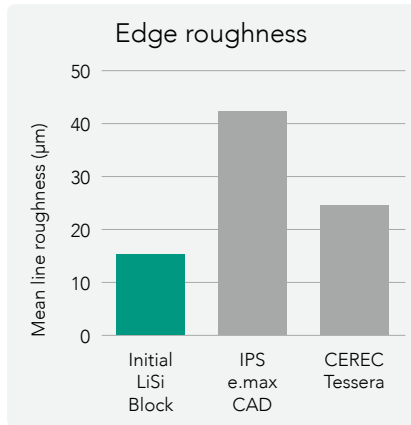
Dr. Andreas Kurbad, Germany

**“Polishing Initial LiSi Block is easy and can be done in less than 2 minutes, with a high-quality final surface finish and aesthetic appearance. The time saving compared to a glaze firing is particularly interesting.”**

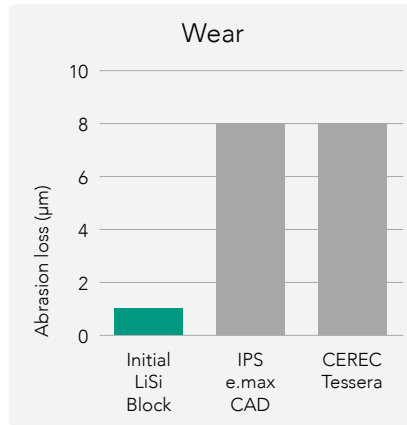
Dr. Christian Moussally, France

\*Source: GC R&D, Japan, Data on file, Under testing conditions based on IFU.

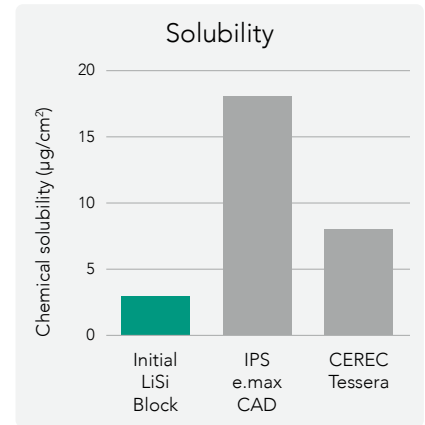
# Durable aesthetics and smooth margins



Source: GC R&D, Japan, Data on file



Source: GC R&D, Japan, Data on file

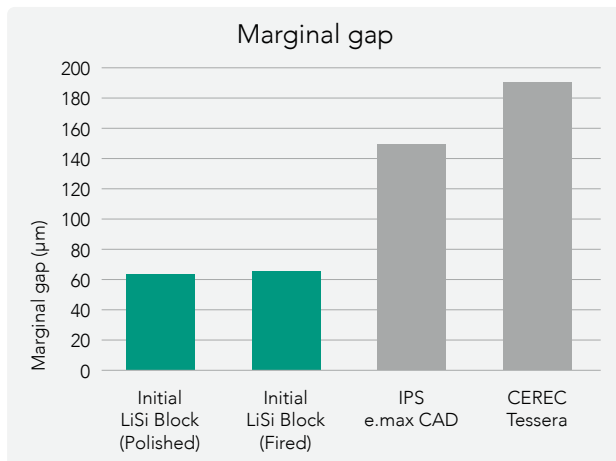


Source: GC R&D, Japan, Data on file

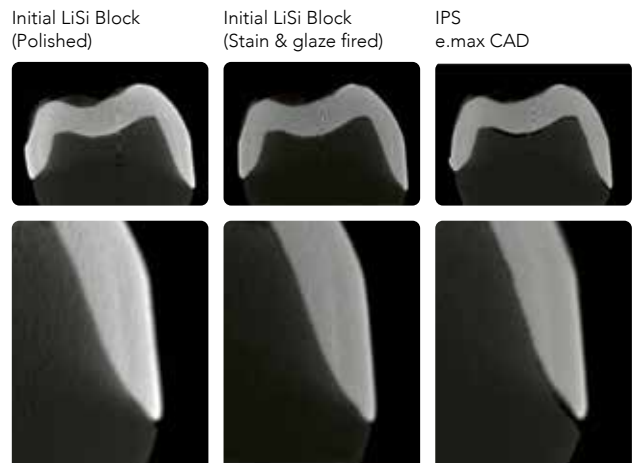
- Optimized acid and wear resistance to help preserve the aesthetics of your restorations over time.
- Excellent edge stability for smooth margins.

## More accurate margins

Being fully crystallized before milling, Initial LiSi Block can be milled with **smooth and accurate margins directly**. Alternatively, it can be fired after staining and maintain great marginal accuracy.



Source: GC R&D, Japan, Data on file



Initial LiSi Block restoration under direct and indirect light.

## Natural opalescence

Initial LiSi Block is available in high translucency (HT) and low translucency (LT) and offers a natural opalescence in any light.

## Choose your preferred finishing procedure

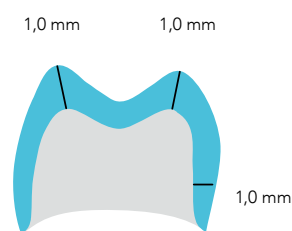
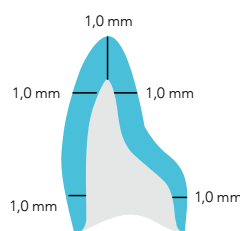
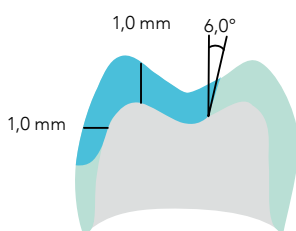
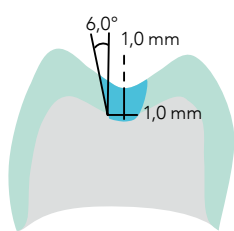
Superior gloss can be obtained in few minutes by polishing only, and the restoration is then ready for luting. For sophisticated aesthetic cases, remarkable results can be achieved with GC Initial Lustre Pastes ONE and Initial Spectrum Stains.\*\*

\*\* Higher temperature than the firing instruction may result in a change of the color of your restoration (higher value).

Courtesy of Dr. Javier Tapia Guadix, Spain



# Preparation guidelines



## Inlays / Onlays

- Cavity wall angle: 6° with long axis
- Shoulder preparation

## Full crowns

- Wall angle: 6~10° taper
- Deep chamfer or round chamfer preparation

## Cement recommendation

Adhesive luting is recommended for Initial LiSi Block. Both G-CEM ONE and G-CEM LinkForce from GC can be used for any type of indications using Initial LiSi Block.



## Function meets aesthetics

"I'm totally excited about the natural opalescence and color matching of the HT version of Initial LiSi Block."

**MDT Christian Hannker, Germany**



"I love the opalescence of Initial LiSi Block and as a consequence thereof the color stability and perfect matching."

**Dr. Christian Lampson, Germany**



Courtesy of MDT Christian Hannker & Dr. Christian Lampson, Germany



Courtesy of MDT Marco Muttone & Dr. Alessandro Iorio, Italy