initial™ LiSi Block

Fully Crystallized Lithium Disilicate

Natural beauty restored in one appointment

Smile for the World

Since 1921

100 years of Quality in Dental

Natural beauty restored in one appointment

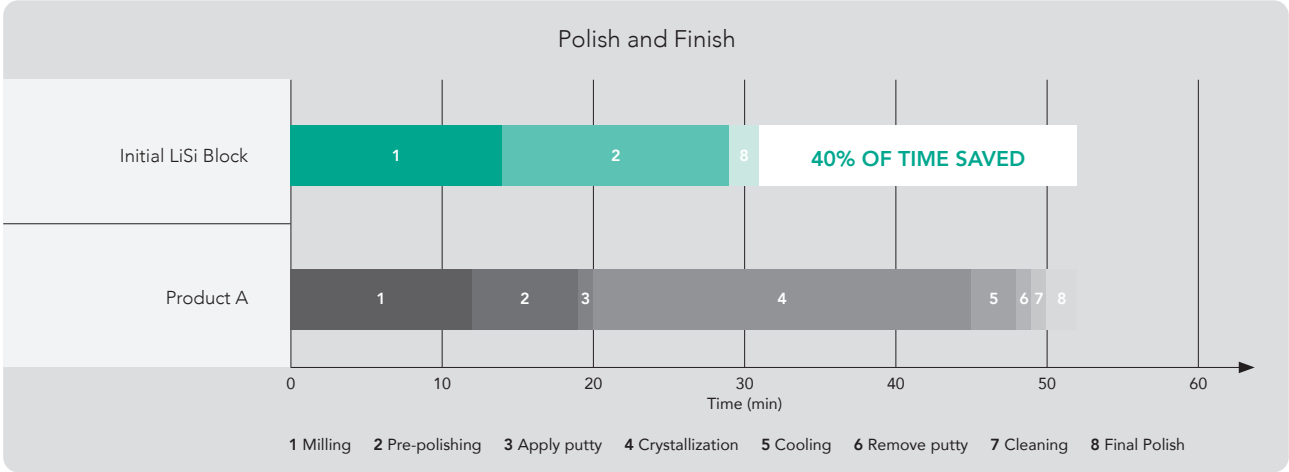
Initial LiSi Block: new lithium disilicate block for one appointment dentistry

Initial LiSi Block is a **fully crystallized lithium disilicate block** that delivers optimal physical properties without firing.[1-6] 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.[1-6] This makes it an ideal, time saving solution for single visit chairside treatments.

- Save time, as no firing required
- Fully crystallized lithium disilicate
- Durable aesthetics & accurate margins[8]
- Natural opalescence

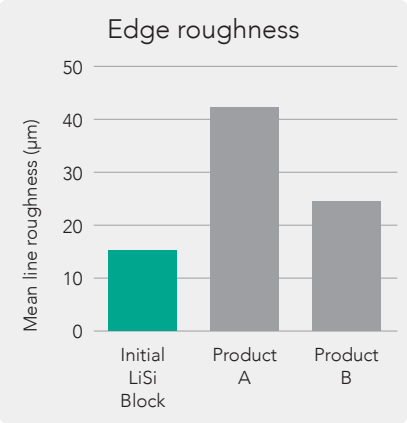
Just Mill, Polish and Place

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!



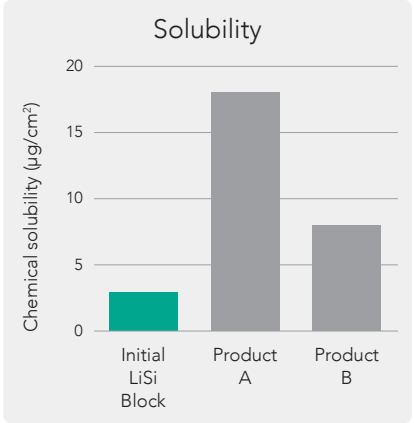
Source: GC R&D, Japan, Data on file [in-house test] available from info.australasia@gc.dental.
^ Under testing conditions based on IFU.

Durable aesthetics and smooth margins



Source: GC R&D, Japan, Data on file [edge stability was quantified after grinding using a 3D measuring microscope] available from info.australasia@gc.dental.

Source: GC R&D, Japan, Data on file [wear was quantified after 10,000 cycles, load 300gf with sintered antagonist HAp] available from info.australasia@gc.dental.

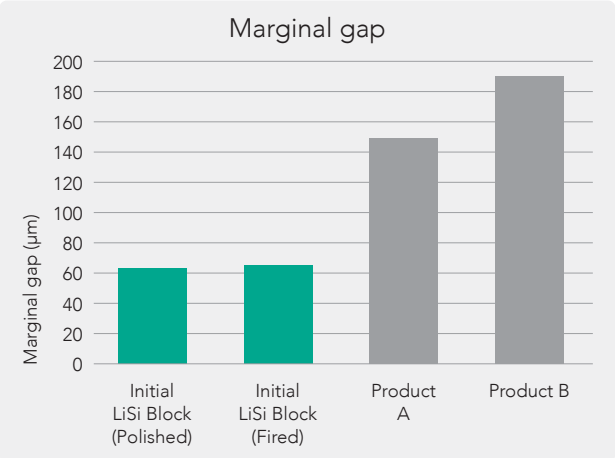


Source: GC R&D, Japan, Data on file [ISO 6872 (Dentistry-Ceramic materials): 2015 (80°C, 4vol% acetic acid aq) available from info.australasia@gc.dental.

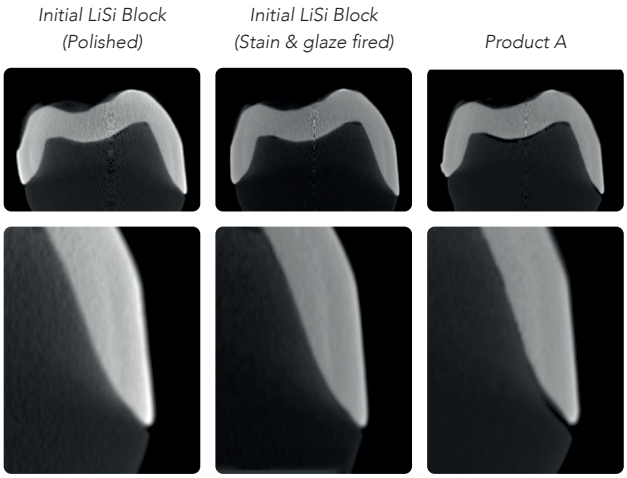
- Optimized acid and wear resistance to help preserve the aesthetics of your restorations over time.[1, 3, 4, 5]
- Excellent edge stability for smooth margins.[2, 6]

More accurate margins[8]

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.



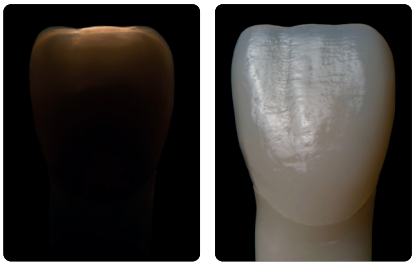
Source: GC R&D, Japan, Data on file [marginal gap was quantified by µ-CT system] available from info.australasia@gc.dental.



Natural opalescence

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

Initial LiSi Block restoration under direct and indirect light.



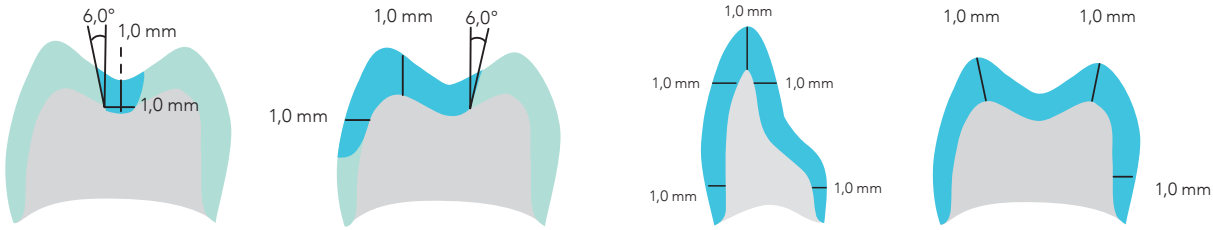
Images courtesy of Dr. Javier Tapia Guadix, Spain

Choose your preferred finishing procedure

Superior gloss can be obtained in a 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.*

**GC R&D, Japan, Data on file [in-house test] available from info.australasia@gc.dental.*

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.

G-CEM ONE™ with Adhesive Enhancing Primer and G-Multi PRIMER

G-CEM ONE™ with G-Premio BOND and G-Multi PRIMER

G-CEM LinkForce®

Function meets aesthetics

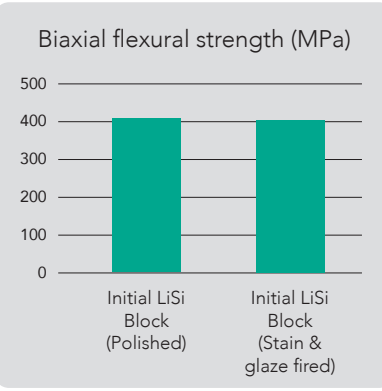
Images courtesy of MDT Christian Hannker & Dr. Christian Lampson, Germany

Images courtesy of MDT Marco Muttone & Dr. Alessandro Iorio, Italy

HDM technology for CAD/CAM dentistry

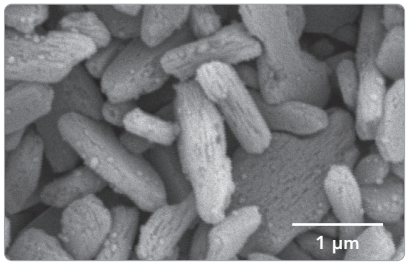
In 2016, with Initial LiSi Press, GC introduced HDM (High Density Micronization) technology, which uses equally dispersed lithium disilicate microcrystals to fill the entire glass matrix rather than using traditional larger size crystals. The outstanding clinical performance of the HDM technology was shown in a randomized clinical trial after 4 years of service.[7]

To bring fast solutions for one appointment dentistry, GC has further developed HDM technology for CAD/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.[8]

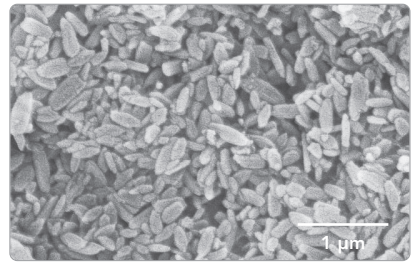


Source: GC R&D, Japan, Data on file [ISO 6872 (Dentistry-Ceramic materials): 2015] available from info.australasia@gc.dental.

Conventional lithium disilicate (Product A)



HDM technology for CAD/CAM (Initial LiSi Block)



Source: GC R&D, Japan. Data on file available from info.australasia@gc.dental.

Improved glass matrix stiffness for high mechanical strength

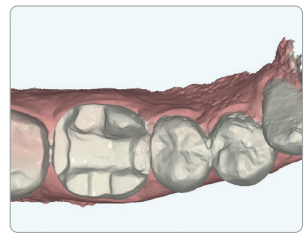
Smaller crystal for easy milling and high wear resistance

Workflow

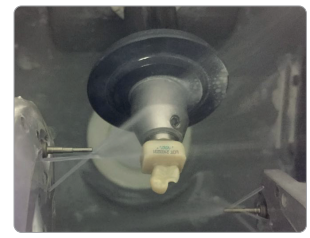
Images courtesy of Prof. Matteo Basso, Italy

Prepare

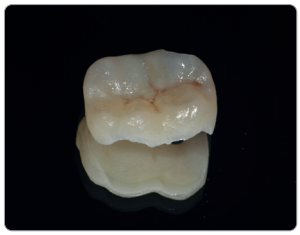
Scan



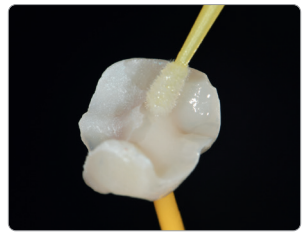
Design



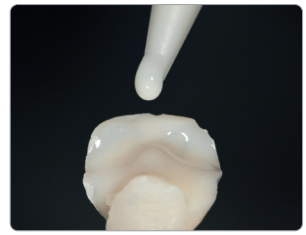
Mill



Polish or characterize



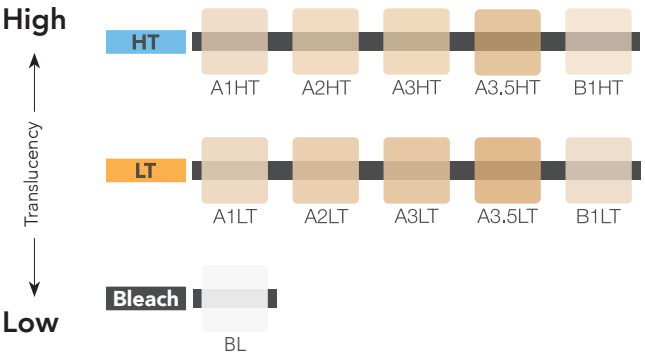
Condition



Cement

Final result

initial™ LiSi Block



Initial LiSi Block CEREC mandrel, size 14, refill of 5 blocks

Shade
Initial LiSi Block 14 CEREC A1 HT
Initial LiSi Block 14 CEREC A2 HT
Initial LiSi Block 14 CEREC A3 HT
Initial LiSi Block 14 CEREC A3.5 HT
Initial LiSi Block 14 CEREC B1 HT
Initial LiSi Block 14 CEREC A1 LT
Initial LiSi Block 14 CEREC A2 LT
Initial LiSi Block 14 CEREC A3 LT
Initial liSI BLock 14 CEREC A3.5 LT
Initial LiSi Block 14 CEREC B1 LT
Initial LiSi Block 14 CEREC BL

1. *Hoshino T, Matsudate Y, Sasaki K (2020). Wear resistance of CAD/CAM glass ceramic blocks. J Dent Res 99 (Spec Iss A):1823, (https://iadr.abstractarchives.com/abstract/20iags-3294486/wear-resistance-of-cadcam-glass-ceramic-blocks).*
2. *Kato K et al. (2020). Edge Chipping Resistance of Glass Ceramic Block for CAD/CAM. J Dent Res 99 (Spec Iss A):0083, (https://iadr.abstractarchives.com/abstract/20iags-3315704/edge-chipping-resistance-of-glass-ceramic-block-for-cadcam).*
3. *Kariya S, Azuma T, Fusejima F (2020). Wear Resistance of Novel Machinable Glass Ceramics. J Dent Res 99 (Spec Iss B):1 (https://iadr.abstractarchives.com/abstract/jadr2020-3000018/wear-resistance-of-novel-machinable-glass-ceramics)*
4. *Hoshino T, Matsudate Y, Sasaki K (2019). Chemical durability of CAD/CAM glass-ceramic blocks. J Dent Res 98 (Spec Iss A):0100, (https://iadr.abstractarchives.com/abstract/19iags-3168964/chemical-durability-of-cadcam-glass-ceramic-blocks).*
5. *Kojima K et al. (2019). Wear properties of lithium silicate glass ceramic block for CAD/CAM. J Dent Res 98 (Spec Iss A): 1259, (https://iadr.abstractarchives.com/abstract/19iags-3178759/wear-properties-of-lithium-silicate-glass-ceramic-block-for-cadcam).*
6. *Akiyama S et al. (2019). Edge-Stability of the Novel Lithium Disilicate Glass-Ceramic Block for CAD/CAM. J Dent Res 98 (Spec Iss A): 0097, (https://iadr.abstractarchives.com/abstract/ced-iadr2019-3223282/edge-stability-of-the-novel-lithium-disilicate-glass-ceramic-block-for-cadcam).*
7. *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. https://pubmed.ncbi.nlm.nih.gov/33439557/*
8. *GC R&D, Japan, Data on file [marginal gap was quantified by μ-X ray CT system] available from info.australasia@gc.dental.*

Related products

CERASMART 270

G-CEM Veneer

DIAPOLISHER PASTE

Initial IQ Lustre Pastes ONE

GC Australasia Dental Pty Ltd
1753 Botany Road Banksmeadow
NSW 2019 Australia
Tel. +61 2 9301 8200
info.australasia@gc.dental
https://www.gcaustralasia.com