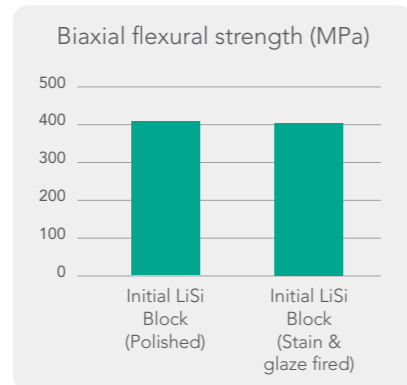


HDM technology for CAD/CAM dentistry



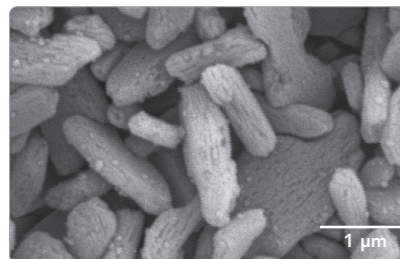
In 2016, with Initial LiSi Press, GC introduced HDM (High Density Micro-nization) technology, which uses equally dispersed lithium disilicate micro-crystals to fill the entire glass matrix rather than using traditional larger size crystals. The outstanding clinical performance of the HDM technology was 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.*



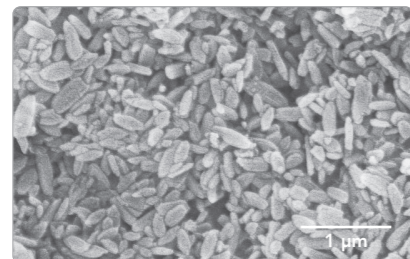
Source: GC R&D, Japan, Data on file

Conventional lithium disilicate (Product A)



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

HDM technology for CAD/CAM (Initial LiSi Block)

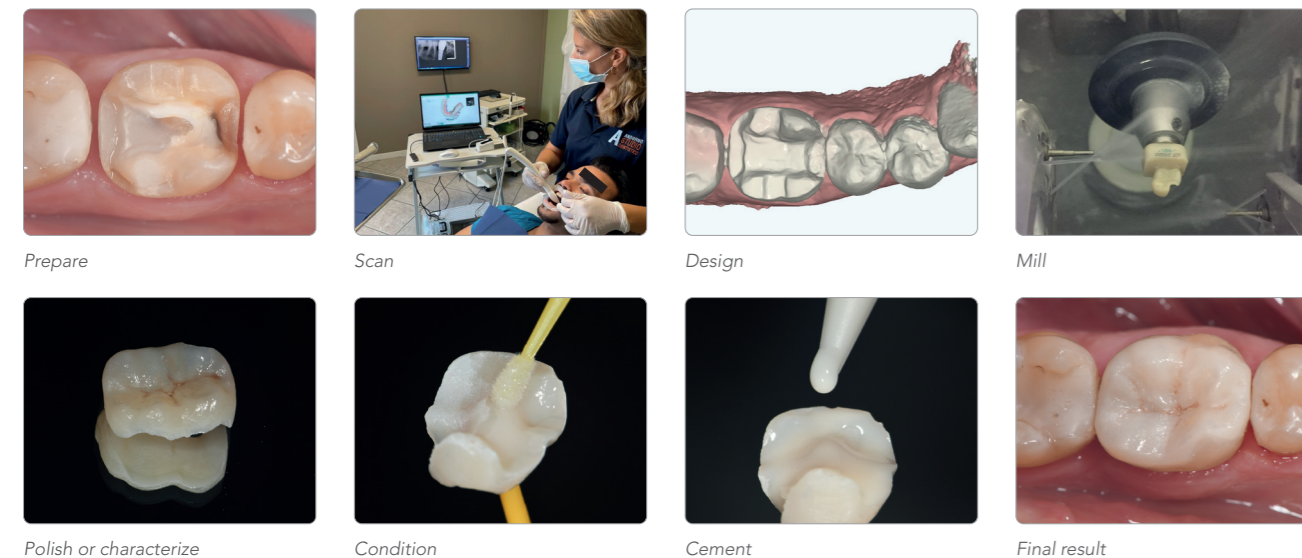


Improved glass matrix stiffness for high mechanical strength

Smaller crystal for easy milling and high wear resistance

Workflow

Images courtesy of Prof. Matteo Basso, Italy

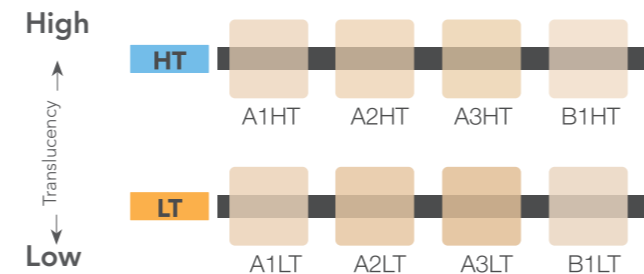


Ordering information



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

Ordering Code	Shade
012935	Initial LiSi Block 14 CEREC A1 HT
012936	Initial LiSi Block 14 CEREC A2 HT
012937	Initial LiSi Block 14 CEREC A3 HT
012938	Initial LiSi Block 14 CEREC B1 HT
012939	Initial LiSi Block 14 CEREC A1 LT
012940	Initial LiSi Block 14 CEREC A2 LT
012941	Initial LiSi Block 14 CEREC A3 LT
012942	Initial LiSi Block 14 CEREC B1 LT



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

- 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.abstrachives.com/abstract/20iags-3294486/wear-resistance-of-cadcam-glass-ceramic-blocks>).
- 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.abstrachives.com/abstract/20iags-3315704/edge-chipping-resistance-of-glass-ceramic-block-for-cadcam>).
- Kariya S, Azuma T, Fusejima F (2020). Wear Resistance of Novel Machinable Glass Ceramics. J Dent Res 99 (Spec Iss B):1 (<https://iadr.abstrachives.com/abstract/jadr2020-3000018/wear-resistance-of-novel-machinable-glass-ceramics>).
- 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.abstrachives.com/abstract/19iags-3168964/chemical-durability-of-cadcam-glass-ceramic-blocks>).
- 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.abstrachives.com/abstract/19iags-3178759/wear-properties-of-lithium-silicate-glass-ceramic-block-for-cadcam>).
- 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.abstrachives.com/abstract/ced-iadr2019-3223282/edge-stability-of-the-novel-lithium-disilicate-glass-ceramic-block-for-cadcam>).
- 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/>

Related products



Natural beauty restored in one appointment



initial™
LiSi Block

Lithium Disilicate
CAD/CAM Block for
chairside solutions



GC Australasia Dental Pty Ltd
1753 Botany Road Banksmeadow
NSW 2019 Australia

T: +61 2 9301 8200
E: info.australasia@gc.dental
www.gcaustralasia.com



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

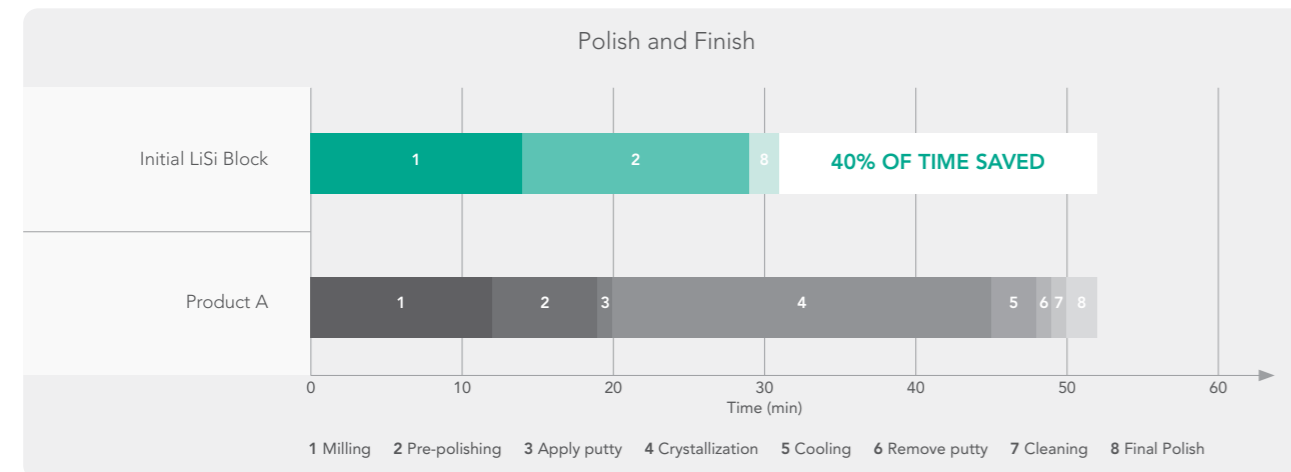
Initial LiSi Block is a **fully crystallized lithium disilicate block** that delivers optimal physical properties without firing.¹⁻⁶ This unique block features GC's proprietary **HDM (High Density Micronization) technology for CAD/CAM dentistry** to deliver high wear resistance, smooth margins and aesthetic 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*
- Natural opalescence

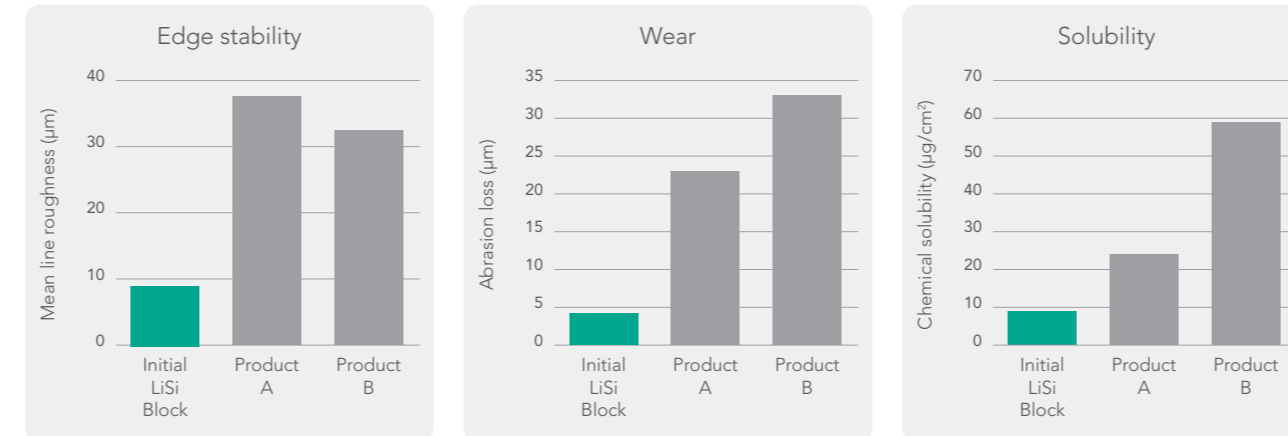
Just Mill, Polish and Place

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
[^] Under testing conditions based on IFU.

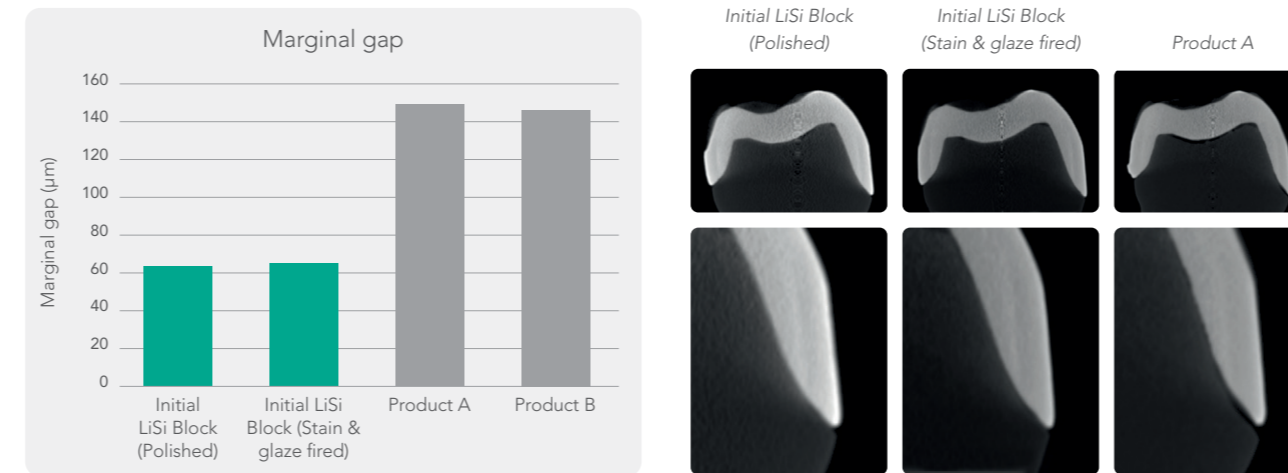
Durable aesthetics and smooth margins



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

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.

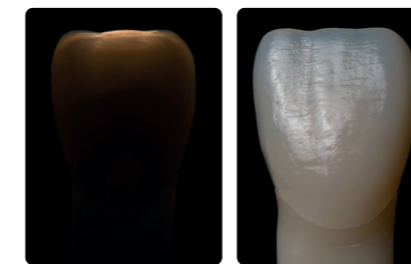


Source: GC R&D, Japan, Data on file

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.

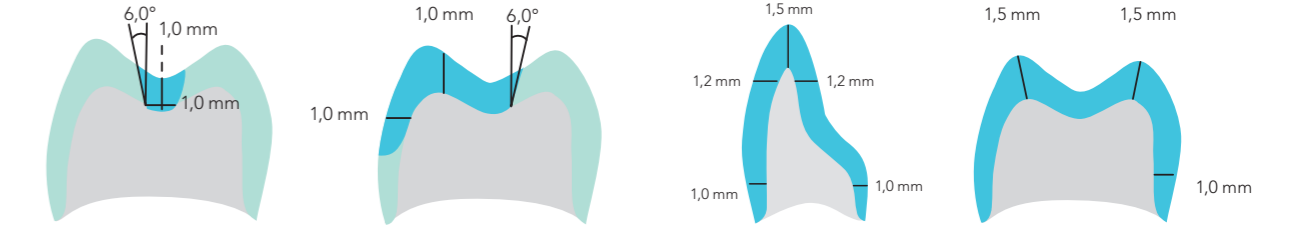


Images courtesy of Dr. Javier Tapia Guadix, Spain

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 NF and Initial Spectrum Stains.*

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



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



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