

References

As of 1stth March 2024



Initial™
LiSi Block

Lithium Disilicate
CAD/CAM Block

GC



Initial™ LiSi Block

Lithium Disilicate CAD/CAM Block

Mechanical and Physical properties

1. **Chemical durability of CAD/CAM glass-ceramic blocks.** Hoshino T, Matsudate Y, Sasaki K. 2019. 97th General Session & Exhibition of the IADR. 0100. [Chemical durability of CAD/CAM glass-ceramic blocks IADR Abstract Archives](#)
2. **Microstructure of new lithium-disilicate CAD/CAM block.** Miyake T, Kato K, Akiyama S, Azuma T, Yamamoto K, Kojima K, Nagaoka K, Shiraki K, Fujimoto A, Sato T, Kumagai T. 2019. Dental Materials. 35(Suppl 1):e25.
3. **Mechanical properties and microstructure of novel Lithium disilicate glass ceramic block for CAD/CAM.** Nagaoka K, Kato K, Akiyama S, Kojima K, Miyake T, Azuma T, Shiraki K, Yamamoto K, Kumagai T. 2019. ICP and EPA Joint Meeting.
4. **In vitro Surface Roughness of Novel Lithium Silicate CAD/CAM Material.** Valcanaia A, Neiva G. 2020. 98th General Session & Exhibition of the IADR. 1827. [In vitro Surface Roughness of Novel Lithium Silicate CAD/CAM Material IADR Abstract Archives](#)
5. **Bonding durability of adhesive resin cement to lithium silicate glass ceramic block for CAD/CAM.** Akiyama S, Fusejima F. 2020. The 153rd Meeting of the Japanese Society of Conservative Dentistry. P19. (available only in Japanese)
6. **Fracture-behavior of CAD/CAM ceramic crowns before and after cyclic fatigue aging.** Garoushi S, Säilynoja E, Vallittu PK, Lassila L. 2021. Int J Prosthodont. In press. DOI: 10.11607/ijp.7207
7. **Evaluation of shear bond strength of glass-ceramic CAD-CAM materials.** Vombrant T, D'haese R, Sabrosa E, Geber K, Vandeweghe S. 2021. CED-IADR/NOF Oral Health Research Congress. J Dent Res 100 (Spec Iss B):abstract number 0203. <https://ced-iadr2021.com/abstract-book/p.99>.
8. **Evaluation of Acid Resistance for Novel Lithium Disilicate Glass-Ceramic Block.** Azuma T, Shigenori A, Fusejima F. 2021. CED-IADR/NOF Oral Health Research Congress. J Dent Res 100 (Spec Iss B): abstract number 0233. <https://ced-iadr2021.com/abstract-book/p.108>.
9. **Shear bond strengths of two newly marketed self-adhesive resin cements to different substrates: A light and scanning electron microscopy evaluation.** Atalay C, Vural U, Miletic I, Gurgan S. 2021. Microsc Res Tech. 2021;1-9. <https://doi.org/10.1002/jemt.24031>
10. **CAD/CAM fabricated prosthetic accuracies of Lithium Disilicate Glass Ceramic Block.** Yamamoto K, Hokii Y, Fusejima F. 2021. ADM 2021 Virtual Meeting. <https://doi.org/10.1016/j.dental.2021.12.104>
11. **Evaluation of Post Milling Microcrack Formation in Lithium Disilicate Block.** Murata Y, Hokii Y, Akiyama S, Fusejima F. 2022. 100th General Session & Exhibition of the IADR. J Dent Res 101 (Spec Iss B):1237.
12. **Evaluation of Acid Resistance for Novel Machinable Lithium Disilicate Glass-Ceramics.** Toshihiko A, Mizuho O, Yusuke O, Shinegori A, Fusejima F. 2022. AADOCR/CADR Annual Meeting. Presentation ID: 0472. <https://iadr.abstractarchives.com/abstract/51am-3649098/evaluation-of-acid-resistance-for-novel-machinable-lithium-disilicate-glass-ceramics>



13. **An investigation on fatigue, fracture resistance, and color properties of aesthetic CAD/CAM monolithic ceramics.** Fouda A, Atta O, Ozcan M, Stawarczyk B, Glaum R, Bourauel B. 2022. Clin Oral Invest. <https://doi.org/10.1007/s00784-022-04833-y>
14. **Acid Resistance of Lithium Disilicate Glass Ceramics.** Onodera M, Azuma T, Murata Y, Yamamoto K, Hokii Y, Akiyama S, Shinozaki Y. 2023. 52nd Annual Meeting & Exhibition of the AADOCR. <https://iadr.abstractarchives.com/abstract/52am-3824170/acid-resistance-of-lithium-disilicate-glass-ceramics>
15. **A Critical Review of Dental Lithia-Based Glass–Ceramics.** Zhang Y, Vardhaman S, Rodrigues CS, Lawn BR. 2023. J Dent Res. Mar;102(3):245-253.doi: 10.1177/00220345221142755. <https://pubmed.ncbi.nlm.nih.gov/36645131/>
16. **Bonding Strength for Lithium Disilicate Glass-Ceramics in Resin Cement System.** 2023. Hiroki K, Kyosuke H, Yutaka S. 2023. AADOCR/CADR Annual Meeting. J Dent Res Vol 102(Spec Iss A):0406. <https://iadr.abstractarchives.com/abstract/52am-3823948/bonding-strength-for-lithium-disilicate-glass-ceramics-in-resin-cement-system>
17. **Fitting Accuracy of CAD/CAM Fabricated Lithium Disilicate Glass-ceramic Restoration.** 2023. Azuma T, Akiyama S, Shinozaki Y. J Dent Res Vol 101 (Spec issue B). Link not available yet.
18. **Impact of glazing on wear, fracture load, and optical properties of a new fully crystallized lithium disilicate ceramic material.** Fouda AM, Stawarczyk B, Ozcan M, Singer L, Bourauel C. 2023. J Mech Behav Biomed Mater 2023. <https://doi.org/10.1016/j.jmbbm.2023.106102>
19. **Translucency of Lithium-Based Silicate Glass–Ceramics Blocks for CAD/CAM Procedures: A Narrative Review.** Vichi A, Zhao Z, Mutahar M, Paolone G, Louca C. 2023. Materials 2023, 16, 6441. <https://doi.org/10.3390/ma16196441>
20. **Evaluation of microcracks formed by grinding in machinable lithium silicate.** Azuma T, Murata Y, Akiyama A, shinozaki Y. 2023. Dent Mater 39 (1): e10. <https://doi.org/10.1016/j.dental.2023.08.022>

Marginal quality

1. **Edge-Stability of the Novel Lithium Disilicate Glass-Ceramic Block for CAD/CAM.** Akiyama S, Kumagai T, Kojima K, Miyake T, Azuma T, Nakaoka K, Shiraki K, Fujimoto A, Yamamoto K, Kato K. 2019. CED-IADR/NOF Oral Health Research Congress. 0097. [Edge-Stability of the Novel Lithium Disilicate Glass-Ceramic Block for CAD/CAM IADR Abstract Archives](#)
2. **Marginal fit of lithium disilicate glass ceramic blocks for CAD/CAM.** Kojima K, Kumagai T. 2020. The Journal of the Japan Academy of Digital Dentistry. 10(1):59. (available only in Japanese)
3. **Edge Chipping Resistance of Glass Ceramic Block for CAD/CAM.** Kato K, Kumagai T, Akiyama, Kojima K, Miyake T, Azuma T, Nagaoka K, Shiraki K, Fujimoto A, Yamamoto K. 2020. 98th General Session & Exhibition of the IADR.



0083. [Edge Chipping Resistance of Glass Ceramic Block for CAD/CAM IADR Abstract Archives](#)
4. **Edge Chipping Resistance of CAD/CAM Glass Ceramic Block.** Akiyama S, Azuma T, Kariya S, Fusejima F. 2021. 99th General Session & Exhibition of the IADR. 0536. [Edge Chipping Resistance of CAD/CAM Glass Ceramic Block IADR Abstract Archives](#)
 5. **Influence of Crystallization Firing on the Fit of Lithium Silicate Inlays.** Niizuma Y, Kobayashi M, Sugai R, Mizukami H, Manabe A. 2021. 99th General Session & Exhibition of the IADR. 1578. [Influence of Crystallization Firing on Fit of Lithium Silicate Inlays IADR Abstract Archives](#)
 6. **Fitting evaluation of the novel machinable lithium disilicate glass ceramics before and after thermal treatment.** Nagaoka K, Yamamoto K, Azuma T, Kojima K, Kariya S, Fusejima F, Kumagai T. 2021. The Journal of the Japan Academy of Digital Dentistry. 11(1):53. (available only in Japanese)
 7. **The internal fitness of crowns using lithium disilicate glass ceramics without heat treatment.** Oishi Y, Nozaki K, Shin C, Oishi S, Nemoto R, Miura H. 2021. Ann Jpn Prosthodont Soc. 13. 130th Special Issue: 173. (available only in Japanese)
 8. **Fitting evaluation after heat treatment of lithium disilicate glass-ceramic block for CAD/CAM.** Murata Y, Yamamoto K, Nagaoka K, Azuma T, Kojima K, Akiyama S, Fusejima F. ICP 2021 Virtual Meeting.
 9. **Effect of Firing Process on Accuracy of Machinable LDS Blocks.** Hokii Y, Yamamoto K, Fusejima F. 2022. J Dent Res Vol 101 (Spec issue C): P111. https://per-iadr2022.com/docs/Abstract_Book.pdf page 186.
 10. **Marginal adaptation of CAD/CAM milled lithium disilicate glass ceramic crowns.** Kojima K, Nagaoka N, Murata Y, Yamamoto K, Akiyama S, Hokii Y, Fusejima F. 2022. Osseointegr. 14(4):201-204. DOI 10.23805/JO.2022.14.04.1
 11. **Comparison of dimensional accuracy of lithium disilicate CAD/CAM ceramics.** Yamamoto K, Murata Y, Nagaoka K, Akiyama S, Hokii Y, Fusejima F. J Osseointegr 2022;14(4):205-208. DOI 10.23805/JO.2022.14.04.2

Wear resistance

1. **Wear properties of lithium silicate glass ceramic block for CAD/CAM.** Kojima K, Kumagai T, Kato K, Akiyama S, Miyake T, Azuma T, Nagaoka K, Shiraki K, Yamamoto K, Sato T. 2019. 97th General Session & Exhibition of the IADR. 1259. [Wear properties of lithium silicate glass ceramic block for CAD/CAM IADR Abstract Archives](#)
2. **Wear resistance of novel machinable lithium disilicate glass-ceramics.** Azuma T, Kato K, Akiyama S, Kojima K, Miyake T, Shiraki K, Nagaoka K, Fujimoto A, Yamamoto K, Kumagai T. 2019. 4th Meeting of the IADR Asia Pacific Region.
3. **Wear resistance of CAD/CAM glass ceramic blocks.** Hoshino T, Matsudate Y, Sasaki K. 2020. 98th General Session & Exhibition of the IADR. 1823. [Wear resistance of CAD/CAM glass ceramic blocks IADR Abstract Archives](#)
4. **Wear behavior and abrasiveness of monolithic CAD/CAM ceramics after simulated mastication.** Fouda AM, Atta O, Kassem A, Desoky M, Bourauel C. Clin Oral Invest (2022). <https://doi.org/10.1007/s00784-022-04611-w>



5. **Effect of occlusal wear corrections on lithium disilicate wear rate.** Sponzilli E, Sayed Ahmed R, Baldi A, Comba A, Rossi T, Scotti N. 2023. 30^oNational Congress of university professors of odontostomatological disciplines. Doi: 10.19256/abstract.cduo.03.2023
6. **The Wear Behavior of Glass-Ceramic CAD/CAM Blocks against Bovine Enamel.** Someya T, Kasahara M, Takemoto S, Hattori M. Materials 2023, 16, 6839. <https://www.mdpi.com/1996-1944/16/21/6839>
7. **Laboratory Investigation of New Fully-Crystalized Lithium Disilicate CAD/CAM Blocks.** Fouda AM, Atta O, Stawarczyk B , Ozcan M, Bourauel C. 2023. Dent Mater 39 (1): e30. <https://doi.org/10.1016/j.dental.2023.08.061>

Clinical study

1. **A randomized controlled clinical trial on press and block lithium disilicate partial crowns: a pilot study.** Ferrari Cagidiaco E, Keeling A, Ferrari M. 2020. J Osseointegr. 12(3):215-221. <https://doi.org/10.23805/JO.2020.12.03.1>