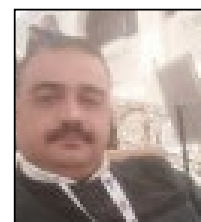


Effects of Different Core Thickness on the Micro hardness of Lithium Disilicate Glass Ceramic

Ihab Naffea Yaseen

Middle Technical University, Baghdad, Iraq



Abstract

Lithium disilicate is the major crystal phase, and be composed of needle-resemble crystals. These crystals are measured from 3 to 6 μm in length. In general, E.max-press properties are very slightly uppermost crystals found in E.max-CAD because of the larger and longer crystals. Due to the materials that have different firing temperatures (820°C for E.max-press). The objective of this study is to estimate the effect of various thicknesses on the hardness of a sample prepared by lithium disilicate glass-ceramic material. Thirty disc-shaped wax patterns were prepared with three core thickness of (0.5mm, 1mm and 1.5mm). All the specimens fabricated with 10mm in diameter and designed according to the ISO specification 6872. Vickers diamond indenter has widely utilized in this study in accordance with the micro-hardness tester device. The present data were analyzed statistically using SPSS (V-22). One-way ANOVA and (LSD) test show that the mean values of 0.5mm core thickness was of 800(\pm 120), while the mean value of 1mm core thickness was of 1229 (\pm 139), and that of 1.5mm core thickness was 1117(\pm 221).

Conclusions: The results showed that the lithium disilicate glass-ceramic material had more advanced surface hardness at thickness of 1mm than that of 0.5mm and 1.5mm thickness of the same materials.

Biography

Ihab Nafea Yaseen has completed his PhD at the age of 32 from Middle Technical University, Baghdad, Iraq. He worked for two and half years as a post-doctoral fellow at Middle Technical University, Iraq. Currently, he is working as an Assistant Professor of Department of prosthetic technology in College of Health & Medical Technology. He has over 30 publications that have been cited over 700 times, and his/her publication H-index is 11.

Publications

MT Baghani, N Yahyazadehfar, A Zamanian... - J Res Med Dent ..., 2018 - researchgate.net
 TG Gharebagh, F Hamedirad, K Miruzadeh - Frontiers in Dentistry, 2019 - ncbi.nlm.nih.gov
 F Abd Kati - Journal of Oral Research, 2019 - joralres.com
 AY Al-Jmmal, Z Nada, AA Taqa - researchgate.net
 F Abd Kati - Journal of Oral Research, 2019 - revistasacademicas.udec.cl



3rd International conference on Dental Health and Oral Hygiene | Amsterdam, The Netherlands | July 13-14, 2021 |

Citation: Ihab Naffea Yaseen, *Effects of Different Core Thickness on the Micro hardness of Lithium Disilicate Glass Ceramic*, 3rd International conference on Dental Health and Oral Hygiene, Amsterdam, The Netherlands, July 13-14, 2021