

Durability Study

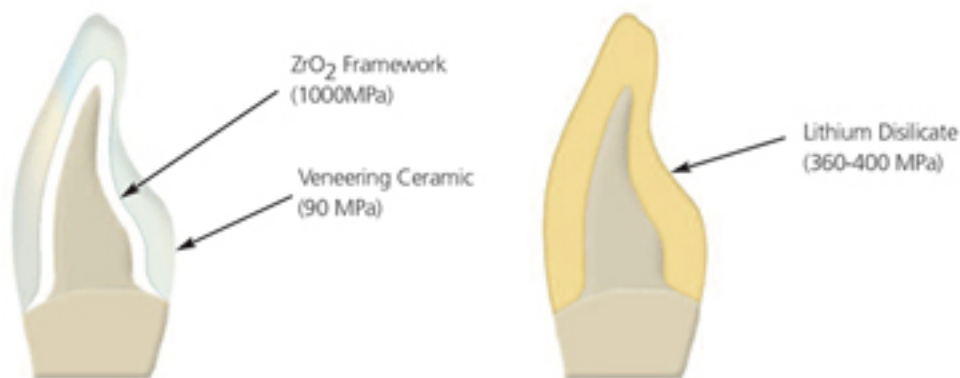
IPS e.max Lithium Disilicate is a high strength ceramic material with 360-400 MPa of flexural strength. When fabricated to full-contour or in a monolithic state, lithium disilicate is an extremely durable material.

Failures in zirconia veneered restorations are the result of a very weak 90 MPa porcelain material having chewing forces exerted upon it. The 1,000 MPa zirconia substructure remains in tact but the failure of the layering porcelain is ultimately a failure of the restoration.

With monolithic lithium disilicate, the work of mastication is being done on a 360-400 MPa material. This strength is homogenous throughout the entire restoration.

Several internal Ivoclar Vivadent tests have demonstrated that the monolithic lithium disilicate is incredibly durable and that the zirconia veneered restorations fail with less load and fewer chewing cycles.

In order to validate these findings, Ivoclar Vivadent called upon the expertise of New York University. The researchers at NYU are authorities on dental materials and have conducted numerous studies investigating the longevity and performance of a wide array of dental materials.



Chipping on Zirconia