

ZIRCONIA

Tips & Tricks

with Paul Cascone, BE MetE, MS



Contouring Zirconia

Q: How does contouring affect zirconia?

A: Tensile forces develop in the ceramic during finishing and can cause zirconia fracturing



We need diamonds to modify zirconia but we cannot use tools that are metal backed. Using a hard diamond disc (diamonds imbedded in a metal disc) will produce high temperature and tensile forces in the groove that is cut into the ceramic by the diamonds. This will result in a crack perpendicular to the direction of the groove. The most obvious case is when one is trying to open up embrasures on a bridge. In some cases, the crack will extend throughout the connector area, fracturing the bridge.

