



GREEN COMPRESSIVE STRENGTH AND DENSITY OF ALUMINA MIX INCORPORATING AQUAZOL CERAMIC BINDER DRY PRESSING EXAMPLE

Aluminum oxide powder (-325 mesh), 0.15 weight percent Darvon C, Aquazol Ceramic Binder and water necessary to give a 70 weight percent solids mix were combined, then ball milled for 20 hours. The slurry was passed through a 100 mesh screen, then dried in thin films to preclude binder migration. Drying proceeded at room temperature until the mix contained less than 0.25 percent water.

The dried powder was ground, passed through a 40 mesh screen, and pressed at 16,000 psi into triplicate 15 gram pellets using an impact press. Green densities were determined from the weights and dimensions of the pellets. Green compressive strengths were determined on an Instron tester.

Weight Percent Aquazol	Green Density (g/cc)	Green Compressive Strength (psi)
1	2.334	235
2	2.345	605
3	2.344	885
4	2.394	1675

