

THERMAL SHOCK BEHAVIOUR OF CORDIERITE CERAMIC FILTER FROM NANOSIZE SEPOLITE

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SUMMARY: This paper describes the preparation, sintering and thermal shock behaviour of extruded cordierite ceramic filters from natural raw materials such as nanosize sepiolite, kaolin and alumina. Sintering of the extruded honeycomb shaped cordierite ceramic samples was carried out at 1210°C for 3 hours. Sintered samples were characterized by X-ray diffraction (XRD), dilatometer for thermal expansion coefficients and thermal shock tests. Cordierite ceramic filters for casting withstood above 10 cycles of thermal shock tests.