

Physical properties of cullet-clay ceramic

Abstract:

A series of ceramic based on (x) cullet-(100-x) clay has successfully been made by slip casting followed by sintering at 800°C. The sample density has been determined using the Archimedes method while their hardness by the Vickers Hardness Test. Meanwhile, the thermal shrinkage has been measured at 900°C. It is found that the density is in the range of 2.03–2.27 g/cm³, increases as the amount of cullet is increased. Meanwhile their hardness up to 0.38 GPa can easily be obtained. The thermal shrinkage is found to be 2.9–11.9%, increases with the increasing of cullet content up to 60 wt%.