

Improvement of General Properties of Thermal Insulators Prepared from Locally Syrian Raw Kaolin

Hamed A Al-Falahi , Fysal Barakat, Iman Al Mansoor

Abstract.

High performance thermal insulators industries is recognized as one of most significant industries worldwide. This, of course, due to its basic role in industries requiring elevated temperatures. Concerning this target, a former study was performed in production of a thermal insulator containing locally available kaolin taking into consideration the effect of ignition temperature and grain size on the general specifications of the insulator.

The low alumina content in kaolin samples, as shown by analysis, has resulted in lowering both the softening and melting points. It is planned in this research to study the effect of soaking time and added alumina on improving physical, thermal and mechanical properties of kaolin sample. Certainly, better properties of sample will result in better performance towards thermal insulation and to be more effective in resisting elevated temperature without affecting other properties.