

**Purification of Meetiyyagoda Kaolin for Boron
free Glaze Making**

A dissertation submitted to the
Faculty of Science & Technology
UvaWellassa University

In partial fulfillment of the requirements for the award of the
Degree of Bachelor of Technology

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2014

Abstract

A tile is a manufactured piece of hard-wearing material such as ceramic, stone, metal, or even glass for covering of roofs, floors, walls, or other objects, for instances tabletops, vanity tops.

The main parts of tile are tile body, glaze layer, and printing layer. Clay, Kaolin, Feldspar, and Quartz are main minerals to make tile body and glaze layer. These materials are abundantly available in Sri Lanka.

Tile decoration is depending on the glaze. So glaze is a very important layer on the tile. For that glaze production material should be in the high quality. Kaolin is one of the raw materials using in glaze and there are several Kaolin deposits in Sri Lanka. But Sri Lankan Kaolin is not pure and it's not suitable for glaze production. Because of that purification of kaolin is very important before using it for glaze production. Kaolin can purify using Leaching Process. It was reduced impurities in the material and increases the Alumina percentage in the kaolin.

Sri Lanka has enough raw materials to generate the frit and glaze. Sodium Feldspar, Potassium feldspar, Quartz, Wollastanite and Kaolin are abundantly uses materials for frit and glaze production. But problems are quality of raw material, technology and production cost. So this research aims produced low cost frit and glaze by using local materials with some of export material which is very important for make glaze.

Key words: Glaze, Frit, Alumina, Feldspar, Kaolin, Wollastanite, Quartz