

Development of Engobe Compositions with Frits Contain Titanium Oxide

Bünyamin Öztürk (Gizem Frit A.S.)

Main costs of ceramic tile production is energy, raw materials and laborcost. Decrasing energy and laborcost is directly depends on efficiency of process. With the ever increasing competition of ceramic manufacturers are seeking ways to reduce costs. That is why many tile producers and their suppliers have developed new and alternative both raw materials and engobe/glaze recipes. In this study we are focused to decrease engobe recipe cost. Mostly wall tile engobe recipies consists of quartz, feldspar, clay, kaoline, zirconium silicate and frit. The most expensive raw materials are zirconium silicate and frit in engobe recipe. New version engobes containing titanium oxide frits has become very important material to decrease consumption of zirconium silicate in recipe.

According to result of trails titanuim frit engobe cost about %15-%20 less than zirconium engobe cost.

Consumption of titanium frit has been growing up since 2008 in Turkey.

Keywords: Titanium frit, engobe cost, zirconium silicate, wall tile, recipe.