

Effects of salt glazes on industrial ceramic tiles produced by fast firing

Assist. Prof. Dr. Nawal Ahmed Ibrahim

Assistant Professor, Department of Ceramics, Faculty of Applied Arts - Helwan University

dr.nawalibrahem@yahoo.com

Abstract:

Salt glaze is one of the special glazes with distinct aesthetic effects, and it has a well-known method for its production, which is throwing salt from special holes in the kiln for salt after finishing the fire with closing all the outlets of the kiln, and when the salt enters the kiln atmosphere. It evaporates and fills the atmosphere of the kiln and adheres to the surfaces of the products and interacts with silica and alumina in the body, forming a salt glaze. The study has preceded the study on the possibility of obtaining salt glaze by tunnel fire and its application to porcelain bodies was the application with salt of sodium chloride directly on the body and then the fire in the tunnel kiln and the results appeared Distinctive for salt glaze, and this research deals with obtaining salt glaze in fast firing on ceramic tiles. Salt has been applied to the tiles after several methods, including spraying glue or any organic adhesive on the tile first, then spreading dry soft salt on the glue layer on For slab or application to glue with silkscreen on the slab as well as applying dry soft salt to the slab with silkscreen to regulate the application of salt to all parts of the slab, and the salt was applied to different types of objects from wall tiles, floors and porcelain directly on the body, as well as salt was applied to the slab body applied to it Lining and application to the body of the slab applied to it liner and glaze together once pre-burned before application and once not burned and application to the body of the tile applied to it only glass, as well as coloring salt or coloring the glaze and then the fire in fast firing under the same conditions as the normal ceramic tiles fire in factories , and the results of salt glaze showed a distinctive aesthetic effect and different from the industrial tiles. The results showed salt glaze distinctive in texture and color and aesthetic effect gives a different artistic feel to the industrial production of tiles.

Key words:

Salt glaze, fast firing, ceramic tiles, industrial production, aesthetic effects.