Effects of Surface Topography on Roughness of Glazed Ceramic Substrates

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Abstract : Glazes and their surface characterization is an important subject for ceramic industries. Fabrication of a super smooth surface resistant to stains is a big improvement for those industries. In this investigation, surface topography of popular glazes such as Zircon and Titania based opaque glazes, calcium based matte glaze and transparent glaze has been analyzed by Marsurf M300, SEM, EDS and XRD. Results shows that surface roughness of glazes seriously depends on surface crystallinity, crystal size and shapes.

Keywords : crystallinity, glaze, surface roughness, topography

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