

LASER APPLYING OF COLOR MINERAL PIGMENTS ON CERAMIC SUBSTRATES

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ABSTRACT *Work on application of laser cladding method to decoration of ceramic products was undertaken in the Institute of Ceramics and Building Materials in cooperation with the Institute of Optoelectronic MUT. Method utilizes application of powdered colour material on the product surface, and its following fusing and solidification using laser beam. Modern technique allows the computer control of a laser treatment process as well as creation of the free-form decoration templates on the product surface. Paper presents the description and influence of main process physical phenomena on the fusing of colourants with substrates. Examples of decorations are also shown.*

Keywords: *laser processing, laser cladding, ceramic paint, mineral pigment, ceramics.*