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Ceramic Units Manufactured by Additive Technologies: the Problem of Final Product Porosity. A Brief Review

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Abstract. The paper reviews the additive technologies application for the ceramic products manufacturing. Advantages and drawbacks of current approaches are mentioned; it is shows that the porosity of the final ceramic product is one of the main problems preventing the wide use of such ceramics at extreme exploitation conditions: high temperature and chemically aggressive gas ambience. A possible pathway to solve this problem is suggested: it is shown that chemical impregnation could provide significant porosity decrease coupled with mechanical properties increase.

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