

Title (en)
METHOD FOR THE PRODUCTION OF OXIDE DENTAL CERAMICS

Title (de)
VERAHREN ZUR HERSTELLUNG VON OXIDISCHER ZAHNKERAMIK

Title (fr)
PROCÉDÉ POUR PRODUIRE UNE CÉRAMIQUE DENTAIRE OXYDÉE

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Application
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Abstract (en)
[origin: WO2010015350A1] The invention relates to a method for producing oxide dental ceramics, comprising the following steps: a) numeric data of the three-dimensional shape of an oxide dental ceramic article that is to be produced is provided, and the dimensions of the three-dimensional shape are numerically enlarged according to the expected subsequent shrinkage due to sintering; b) a master form of the enlarged three-dimensional shape is produced by means of a generative or abrasive process; c) a female mold is produced by copying the master form, said female mold being designed in such a way as to be made up of at least two parts; d) a feedstock containing an oxide-ceramic powder is introduced into the female mold at a temperature ranging from 60°C to 150°C; e) a cooled molded article is removed from the female mold and is debound, and the debound molded article is finally sintered to obtain a compact oxide dental ceramic article. In said method, no or very little material is wasted. Said method allows very fine edges of crowns and complex geometries to be created. The dental ceramic article can be directly colored in basic tooth colors by adding suitable substances to the feedstock. The number of required apparatuses can be kept low especially when using low-pressure injection molding processes.

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