

Title (en)

DIFFUSION-JOINED CERAMIC COMPONENT AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

DIFFUSIONSGEFÜGTES KERAMISCHES BAUTEIL UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

COMPOSANT CÉRAMIQUE ASSEMBLÉ PAR DIFFUSION ET PROCÉDÉ DE PRODUCTION DE CE COMPOSANT

Publication

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Application

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Abstract (en)

[origin: WO2009010427A1] The invention pertains to the field of ceramics and relates to a component such as can be used as a wear component. The aim of the present invention is to provide a component having joint zones comprising a chemical composition materially extensively approximated to that of the base component. The aim is achieved by a component having base components to be joined made of the same or different ceramic materials, the chemical composition of the joint zone differing by 1 to a maximum of 40 at.-% from the chemical composition of the base components, and thermal expansion coefficients differing by a maximum of 2.10-6 K-1. The invention further relates to a method in which at least two ceramic base components are coated with a film in the area of the joint zone, the film comprising materials having a maximum of 70% sinter additives that are not materials of the respective base components, and said compound body being exposed to an increase in temperature for a fluid phase reaction.

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