

Title (en)

POLYMER CERAMIC MATERIALS WITH THERMAL EXPANSION CHARACTERISTICS SIMILAR TO THOSE OF METALS

Title (de)

POLYMERKERAMISCHE WERKSTOFFE MIT METALLÄHNLICHEM WÄRMEAUSDEHNUNGSVERHALTEN

Title (fr)

MATERIAUX EN CERAMIQUE POLYMERES AYANT UN COMPORTEMENT DE DILATATION THERMIQUE COMPARABLE A CELUI DU METAL

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Application

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Abstract (en)

[origin: DE19937322A1] The invention relates to polymerceramic composite materials with almost zero contraction compared to the mould after final partial pyrolysis and with comparable thermal expansion characteristics (preferably within an application range of 400 DEG C or below) to metal construction materials, especially gray cast iron or steel, obtained according to the method described below. The invention also relates to corresponding composite structures and moulded parts and to methods for producing and using the inventive materials, composite structures and moulded parts. These polymerceramic composite materials can be used e.g. instead of or in contact with steel or gray cast iron as temperature-resistant moulded parts, predominantly in mechanical engineering, without finishing after the moulding process.

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