

Title (en)

METHOD FOR PRODUCING THIN TRANSPARENT CERAMIC PARTS, AND THIN TRANSPARENT CERAMIC PARTS

Title (de)

VERFAHREN ZUR HERSTELLUNG VON DÜNNEN TRANSPARENTEN KERAMISCHEN TEILEN UND DÜNNE TRANSPARENTE KERAMISCHE TEILE

Title (fr)

PROCÉDÉ POUR FABRIQUER DES PIÈCES CÉRAMIQUES TRANSPARENTES MINCES ET PIÈCES CÉRAMIQUES TRANSPARENTES MINCES

Publication

EP 3894371 A1 20211020 (DE)

Application

EP 19821061 A 20191210

Priority

- DE 102018132319 A 20181214
- EP 2019084391 W 20191210

Abstract (en)

[origin: WO2020120458A1] The invention relates to the field of ceramics and concerns a method for use in displays of electronic devices with high mechanical stress, for example. The object of the present invention is to provide a method by means of which thin ceramic parts having thicknesses of substantially <1 mm with high transparency are produced. The object is achieved by a method for producing thin transparent ceramic parts, in which ceramic powders are mixed together with a solvent and a monomer and a photoinitiator, and at least 0.0005% by mass of a photoinitiator is added, the mixture is subsequently introduced into a mould, then the mixture is irradiated for at least 1 min with light which has a wavelength for activating the photoinitiator, the moulded body is subsequently removed from the mould and dried, and then the debinding and sintering of the moulded body is carried out.

IPC 8 full level

C04B 35/053 (2006.01); **B28B 1/00** (2006.01); **B32B 18/00** (2006.01); **C04B 35/115** (2006.01); **C04B 35/44** (2006.01); **C04B 35/443** (2006.01);
C04B 35/486 (2006.01); **C04B 35/505** (2006.01); **C04B 35/626** (2006.01); **C04B 35/634** (2006.01); **C04B 35/645** (2006.01)

CPC (source: EP US)

B32B 18/00 (2013.01 - EP); **C04B 35/053** (2013.01 - EP); **C04B 35/115** (2013.01 - EP US); **C04B 35/44** (2013.01 - EP US);
C04B 35/443 (2013.01 - EP); **C04B 35/486** (2013.01 - EP); **C04B 35/505** (2013.01 - EP); **C04B 35/6261** (2013.01 - EP US);
C04B 35/6263 (2013.01 - EP); **C04B 35/63424** (2013.01 - EP US); **C04B 35/6455** (2013.01 - EP); **C04B 35/6455** (2013.01 - US);
C04B 2235/5409 (2013.01 - EP); **C04B 2235/6027** (2013.01 - EP); **C04B 2235/608** (2013.01 - EP); **C04B 2235/762** (2013.01 - EP);
C04B 2235/764 (2013.01 - EP); **C04B 2235/77** (2013.01 - EP); **C04B 2235/783** (2013.01 - EP); **C04B 2235/785** (2013.01 - EP);
C04B 2235/786 (2013.01 - EP); **C04B 2235/9653** (2013.01 - EP); **C04B 2237/34** (2013.01 - EP); **C04B 2237/343** (2013.01 - EP US);
C04B 2237/348 (2013.01 - EP); **C04B 2237/704** (2013.01 - EP)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020120458 A1 20200618; DE 102019133741 A1 20200618; EP 3894371 A1 20211020; US 12024468 B2 20240702;
US 2022098110 A1 20220331

DOCDB simple family (application)

EP 2019084391 W 20191210; DE 102019133741 A 20191210; EP 19821061 A 20191210; US 201917413116 A 20191210