

Title (en)
CONTINUOUS FIBRES BASED ON CELLULOSE AND/OR CELLULOSE DERIVATIVES, METHOD FOR THE PRODUCTION THEREOF AND USE THEREOF

Title (de)
ENDLOS Fasern auf Basis von Cellulose und/oder Cellulosederivaten, Verfahren zu deren Herstellung sowie deren Verwendung

Title (fr)
Fibres continues à base de cellulose et/ou de dérivés de cellulose, leur procédé de production et leur utilisation

Publication
EP 4153809 A1 20230329 (DE)

Application
EP 21727865 A 20210521

Priority
• DE 102020113807 A 20200522
• EP 2021063669 W 20210521

Abstract (en)
[origin: WO2021234152A1] The invention relates to continuous fibres based on cellulose and/or cellulose derivatives, in particular for the production of flame-resistant textiles or carbon fibres. The cellulose and/or cellulose derivatives are present in the continuous fibres in a dehydrated form. The oxygen content is 29 to 39 wt.%, the limiting oxygen index LOI is 25 to 40 (according to DIN EN ISO 6941; 2004-05), and the density is 1.3 to 1.45 g/cm³ (according to DIN 65569-1; 1992-10). The continuous fibres can be advantageously produced in that the starting fibres are impregnated with an, in particular, aqueous solution of a special salt, which releases a dehydrating acid under thermal conditions, which brings about the dehydration of cellulose and/or cellulose derivatives in a subsequent thermal stage. In particular, advantageous carbon fibres can be produced with the continuous fibres according to the invention.

IPC 8 full level
D06M 13/46 (2006.01); **D01F 9/16** (2006.01); **D06M 11/13** (2006.01); **D06M 13/256** (2006.01)

CPC (source: EP KR US)
D01F 9/16 (2013.01 - EP KR US); **D06M 11/13** (2013.01 - EP KR); **D06M 13/256** (2013.01 - EP KR US); **D06M 13/46** (2013.01 - EP KR US); **D06M 2101/06** (2013.01 - EP US); **D06M 2101/08** (2013.01 - EP KR); **D06M 2200/30** (2013.01 - KR US)

Citation (search report)
See references of WO 2021234152A1

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102020113807 A1 20211125; CN 115917074 A 20230404; EP 4153809 A1 20230329; JP 2023536777 A 20230830; KR 20230027057 A 20230227; MX 2022014658 A 20230222; TW 202212668 A 20220401; US 2023193521 A1 20230622; WO 2021234152 A1 20211125

DOCDB simple family (application)
DE 102020113807 A 20200522; CN 202180036703 A 20210521; EP 2021063669 W 20210521; EP 21727865 A 20210521; JP 2022569239 A 20210521; KR 20227044657 A 20210521; MX 2022014658 A 20210521; TW 110114191 A 20210420; US 202117926691 A 20210521