

Title (en)

BIOGENIC BLACK PIGMENT, METHOD FOR THE PRODUCTION THEREOF AND USE THEREOF

Title (de)

BIOGENES SCHWARZPIGMENT, VERFAHREN ZU SEINER HERSTELLUNG UND SEINE VERWENDUNG

Title (fr)

PIGMENT NOIR BIOGÈNE, SON PROCÉDÉ DE PRODUCTION ET SON UTILISATION

Publication

EP 4334396 A1 20240313 (DE)

Application

EP 22727864 A 20220505

Priority

- EP 21172354 A 20210505
- EP 2022062166 W 20220505

Abstract (en)

[origin: WO2022234023A1] The invention relates to a biogenic black pigment with a ¹⁴C content of greater than 0.20 Bq/g carbon and less than 0.45 Bq/g carbon, a mass fraction of volatile components of 20 Ma.% to 40 Ma.% determined according to DIN 51720 and in relation to the dry matter of the pigment, a mass fraction of carbon of 60 Ma.% to 95 Ma.% determined according to DIN 51732 and in relation to the dry matter of the pigment, an ash content of 0.5 Ma.% to 7 Ma.% in relation to the dry matter of the pigment, a mass fraction of polycyclic aromatic hydrocarbons (PAH) of <10 ppm in relation to the dry matter of the pigment, and a mass fraction of lead, mercury, cadmium and chromium of <100 ppm in total, in relation to the dry matter of the pigment, an STSA of 5 m²/g to 200 m²/g and a D99 value of the Q3 cumulative curve distribution of the particle size of ≤100 μm. The invention also relates to: a method for the production of the biogenic black pigment; the use of the biogenic black pigment for the achromatic coloring and chromatic shading of plastics, plastic parts, coating materials, printing colors, inks, paints, papers, paperboards, cardboards and mineral materials, and as a reinforcing filler for rubber-like, thermoplastic, liquid crystal and magnetorheological elastomers; as well as materials and objects containing the biogenic black pigments.

IPC 8 full level

C09C 1/48 (2006.01); **C08K 3/013** (2018.01); **C08K 3/04** (2006.01); **C08K 9/06** (2006.01); **C09C 3/00** (2006.01); **C09C 3/04** (2006.01); **C09C 3/12** (2006.01); **C09D 7/62** (2018.01)

CPC (source: EP KR)

C08K 3/04 (2013.01 - EP); **C08K 9/06** (2013.01 - EP KR); **C09C 1/48** (2013.01 - EP KR); **C09C 3/006** (2013.01 - EP KR); **C09C 3/041** (2013.01 - EP KR); **C09C 3/12** (2013.01 - EP KR); **C09D 7/62** (2018.01 - EP); **C09D 11/037** (2013.01 - KR); **C09D 11/324** (2013.01 - KR); **C01P 2004/51** (2013.01 - EP KR); **C01P 2004/61** (2013.01 - EP); **C01P 2006/12** (2013.01 - EP); **C01P 2006/60** (2013.01 - EP KR); **C01P 2006/62** (2013.01 - EP); **C01P 2006/63** (2013.01 - EP); **C01P 2006/64** (2013.01 - EP); **C01P 2006/80** (2013.01 - EP); **C08K 2201/00** (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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2022234023 A1 20221110; EP 4334396 A1 20240313; JP 2024518930 A 20240508; KR 20240004962 A 20240111

DOCDB simple family (application)

EP 2022062166 W 20220505; EP 22727864 A 20220505; JP 2023568088 A 20220505; KR 20237041853 A 20220505