

Title (en)

METHOD FOR COATING AT LEAST ONE PRINTING MEDIUM WITH A LIQUID FLUID

Title (de)

VERFAHREN ZUM BESCHICHTEN ZUMINDEST EINES DRUCKMEDIUMS MIT EINEM FLÜSSIGEN FLUID

Title (fr)

PROCÉDÉ D'APPLICATION DE REVÊTEMENT SUR AU MOINS UN SUPPORT D'IMPRESSION AVEC UN FLUIDE LIQUIDE

Publication

EP 4370295 A1 20240522 (DE)

Application

EP 22733855 A 20220620

Priority

- IT 202100018653 A 20210715
- EP 2022025284 W 20220620

Abstract (en)

[origin: WO2023284996A1] The invention relates to a method for coating at least one printing medium (1), in particular a ceramic printing medium, comprising the following steps: a) providing at least one coating head (2) that has a fluid supply duct (3), a plurality of nozzles (4) having in each case a nozzle duct and an inflow opening (5), which form the connection between the relevant nozzle ducts and the fluid supply duct (3), wherein the relevant nozzles (4) are arranged so as to be stationary on a sidewall 6 of the fluid supply duct (3); b) filling the fluid supply duct (3) with liquid fluid; c) transporting the at least one printing medium (1) in a transport direction; d) applying a relevant overpressure, relative to the atmospheric pressure, to the liquid fluid, at least during the time intervals in which the at least one printing medium (1) is intended to be coated, at least in the region of one of each inflow opening (5) of the nozzles (4), such that the liquid fluid is applied in the form of continuous columnar fluid jets onto the at least one printing medium (1); wherein according to e), a relevant negative pressure, relative to the atmospheric pressure, is applied to the liquid fluid during the time intervals in which no liquid fluid is intended to be output from the nozzles (4), at least in the region of one of each inflow opening (5) of the nozzles (4), as a result of which an outflow of liquid fluid out of the nozzle ducts is prevented in step e), even without the involvement of closure bodies associated with each of the nozzles (4), and is allowed in step d).

IPC 8 full level

B28B 11/04 (2006.01); **B41J 2/175** (2006.01); **B41J 2/18** (2006.01); **B41J 3/407** (2006.01)

CPC (source: EP US)

B05B 1/14 (2013.01 - EP); **B05B 1/20** (2013.01 - US); **B05B 9/0416** (2013.01 - EP); **B05B 9/0423** (2013.01 - EP US); **B28B 11/048** (2013.01 - EP US); **B41J 2/18** (2013.01 - EP); **B41J 3/407** (2013.01 - EP); **B05B 15/58** (2018.02 - 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 2023284996 A1 20230119; EP 4370295 A1 20240522; IT 202100018653 A1 20230115; US 2024239009 A1 20240718

DOCDB simple family (application)

EP 2022025284 W 20220620; EP 22733855 A 20220620; IT 202100018653 A 20210715; US 202218567998 A 20220620