

Title (en)
IMPREGNATION DEVICE TO PRODUCE CONTINUOUS FIBRE REINFORCED THERMOPLASTIC FILAMENTS FOR 3D PRINTING, AND IMPREGNATION METHOD THEREOF

Title (de)
IMPRÄGNIERVORRICHTUNG ZUR HERSTELLUNG VON ENDLOSFASERVERSTÄRKTEN THERMOPLASTISCHEN FILAMENTEN FÜR 3D-DRUCK UND IMPRÄGNIERVERFAHREN DAFÜR

Title (fr)
DISPOSITIF D'IMPRÉGNATION POUR PRODUIRE DES FILAMENTS THERMOPLASTIQUES RENFORCÉS PAR DES FIBRES CONTINUES POUR IMPRESSION 3D, ET MÉTHODE D'IMPRÉGNATION ASSOCIÉE

Publication
EP 4294617 A1 20231227 (EN)

Application
EP 21714379 A 20210223

Priority
• PT 11707221 A 20210217
• IB 2021051520 W 20210223

Abstract (en)
[origin: WO2022175723A1] The present disclosure relates to an impregnation device (1) and method for continuously obtaining a fibre-reinforced thermoplastic filament (42) from continuous fibre strands or yarns (11) to be impregnated with a thermoplastic resin, fed through an inlet (9), said impregnation device comprising: an impregnation cavity having a rectangular cross-section and being tapered towards a circular cross- section outlet (14) of the impregnated yarn; wherein the impregnation cavity is shaped to undulate sinusoidally in a downstream direction.

IPC 8 full level
B29B 15/12 (2006.01)

CPC (source: EP)
B29B 15/122 (2013.01)

Citation (search report)
See references of WO 2022175723A1

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 2022175723 A1 20220825; EP 4294617 A1 20231227

DOCDB simple family (application)
IB 2021051520 W 20210223; EP 21714379 A 20210223