

Title (en)  
CONTINUOUS AND RANDOM REINFORCEMENT IN A 3D PRINTED PART

Title (de)  
KONTINUIERLICHE UND ZUFÄLLIGE VERSTÄRKUNG IN EINEM 3D-DRUCKTEIL

Title (fr)  
REINFORCEMENT CONTINU ET ALÉATOIRE DANS UNE PIÈCE IMPRIMÉE EN 3D

Publication  
**EP 3402654 A1 20181121 (EN)**

Application  
**EP 17739144 A 20170117**

Priority  
• US 201662279657 P 20160115  
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• US 2017013748 W 20170117

Abstract (en)  
[origin: WO2017124085A1] Combined continuous/random fiber reinforced composite filament including a plurality of axial fiber strands extending substantially continuously within a matrix material of the fiber reinforced composite filament as well as a multiplicity of short chopped fiber rods extending at least in part randomly within the same matrix material is 3D printed via a deposition head including a conduit continuously transitioning to a substantially rounded outlet tipped with an ironing lip, which is driven to flatten the fiber reinforced composite filament against previously deposited portions of the part, as the matrix material and included therein a first proportion of the short chopped fiber rods are is flowed interstitially among the axial fiber strands spread by the ironing lip. A second proportion of the short chopped fiber rods is forced against previously deposited portions of the part.

IPC 8 full level  
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