

(12) International Application Status Report

Received at International Bureau: 15 December 2017 (15.12.2017)

Information valid as of: 27 May 2019 (27.05.2019)

Report generated on: 20 January 2020 (20.01.2020)

(10) Publication number:

WO2018/144120

(43) Publication date:

09 August 2018 (09.08.2018)

(26) Publication language:

English (EN)

(21) Application Number:

PCT/US2017/064057

(22) Filing Date:

30 November 2017 (30.11.2017)

(25) Filing language:

English (EN)

(31) Priority number(s):

62/454,474 (US)

(31) Priority date(s):

03 February 2017 (03.02.2017)

(31) Priority status:

Priority document received (in compliance with PCT Rule 17.1)

62/548,255 (US)

21 August 2017 (21.08.2017)

Priority document received (in compliance with PCT Rule 17.1)

(51) International Patent Classification:

B32B 5/02 (2006.01); **B32B 5/06** (2006.01); **B32B 5/10** (2006.01); **B32B 5/26** (2006.01)

(71) Applicant(s):

NIKE INNOVATE C.V. [NL/US]; Dutch Partnership One Bowerman Drive Beaverton, Oregon 97005 (US) (AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BE, BF, BG, BH, BJ, BN, BR, BW, BY, BZ, CA, CF, CG, CH, CI, CL, CM, CN, CO, CR, CU, CY, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, FR, GA, GB, GD, GE, GH, GM, GN, GQ, GR, GT, GW, HN, HR, HU, ID, IE, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KM, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MC, MD, ME, MG, MK, ML, MN, MR, MT, MW, MX, MY, MZ, NA, NE, NG, NI, NL, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SI, SK, SL, SM, SN, ST, SV, SY, SZ, TD, TG, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, ZA, ZM, ZW only)
NIKE, INC. [US/US]; One Bowerman Drive Beaverton, Oregon 97005 (US) (US only)

(72) Inventor(s):

DUA, Bhupesh; c/o NIKE, Inc. One Bowerman Drive Beaverton, Oregon 97005 (US)
GREENE, Pamela S.; c/o NIKE, Inc. One Bowerman Drive Beaverton, Oregon 97005 (US)
KILGORE, Bruce, J.; c/o NIKE, Inc. One Bowerman Drive Beaverton, Oregon 97005 (US)
RUSHBROOK, Thomas J.; c/o NIKE, Inc. One Bowerman Drive Beaverton, Oregon 97005 (US)

(74) Agent(s):

WILHELM, Tawni L.; Shook Hardy & Bacon LLP 2555 Grand Boulevard Kansas City, Missouri 64108 (US)

(54) Title (EN): FIBER-BOUND ENGINEERED MATERIALS FORMED USING FOUNDATION SCRIMS

(54) Title (FR): MATÉRIAUX MODIFIÉS LIÉS À DES FIBRES FORMÉS À L'AIDE DE CANEVAS DE FONDATION

(57) Abstract:

(EN): A fiber bound engineered material is provided that imparts an intended characteristic at an intended relative location. A fiber layer is entangled with additional fibers in a manner to create a non-uniform engineered material. The lack of uniformity of a fiber bound engineered material may be accomplished through manipulation of the fibers and/or through fiber binding a scrim. The fiber layer binds with additional fibers through entanglement such that a mechanical connection between the entangled fibers is provided. This entanglement allows the fibers to bind without supplemental adhesives, interlacing, or connections. Variations in the fibers and/or inclusion of scrim materials prior to entanglement allows for an intended characteristic (e.g., a functional characteristic) at an intended relative location (e.g., a position determined by an article to be formed therefrom).

(FR): La présente invention concerne un matériau modifié lié à des fibres, qui confère une caractéristique souhaitée au niveau d'un emplacement relatif souhaité. Une couche de fibres est enchevêtrée avec des fibres supplémentaires de manière à créer un matériau modifié non uniforme. Le manque d'uniformité d'un matériau modifié lié à des fibres peut être obtenu par une manipulation des fibres et/ou par liaison de fibres à un canevas. La couche de fibres se lie à des fibres supplémentaires par enchevêtrement de telle sorte qu'une liaison mécanique entre les fibres enchevêtrées est obtenue. Cet enchevêtrement permet aux fibres de se lier sans adhésif, entrelacement ou interaction supplémentaire. Les variations dans les fibres et/ou l'inclusion de matériaux de canevas

avant l'enchevêtrement tiennent compte d'une caractéristique voulue (par ex., une caractéristique fonctionnelle) au niveau d'un emplacement relatif souhaité (par ex., une position déterminée par un article à former à partir de celle-ci).

International search report:

Received at International Bureau: 19 February 2018 (19.02.2018) [EP]

International Report on Patentability (IPRP) Chapter II of the PCT:

Chapter II demand received: 28 November 2018 (28.11.2018)

(81) Designated States:

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

European Patent Office (EPO) : AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM