

Title (en)

FILM STRUCTURE SUITABLE FOR RAPID LAMINATION

Title (de)

FOLIENAUFBAU GEEIGNET ZUR SCHNELLEN LAMINATION

Title (fr)

STRUCTURE DE FILM APPROPRIÉE POUR UNE STRATIFICATION RAPIDE

Publication

**EP 4370334 A1 20240522 (DE)**

Application

**EP 22747685 A 20220711**

Priority

- EP 21185507 A 20210714
- EP 2022069279 W 20220711

Abstract (en)

[origin: WO2023285358A1] The invention relates to a multi-layer structure (MA) comprising: (S1) at least one first outer layer (S1) containing a polymer (P1) having a Vicat softening temperature  $\geq 149^{\circ}\text{C}$ , preferably  $\geq 160^{\circ}\text{C}$ , further preferably  $\geq 170^{\circ}\text{C}$ , more preferably  $\geq 180^{\circ}\text{C}$ , determined according to ISO 306:2004 (50N; 50°/h); (S2) at least one further polymer layer (S2) containing a polymer (P2) having a Vicat softening temperature  $< 149^{\circ}\text{C}$ , preferably  $\leq 140^{\circ}\text{C}$ , more preferably  $\leq 130^{\circ}\text{C}$ , determined according to ISO 306:2004 (50N; 50°/h), preferably in a range from 120 to 148° $\text{C}$ ; (S3) at least one core layer (S3); (S4) at least one further polymer layer (S4) containing a polymer (P2) having a Vicat softening temperature  $< 149^{\circ}\text{C}$ , preferably  $\leq 140^{\circ}\text{C}$ , more preferably  $\leq 130^{\circ}\text{C}$ , determined according to ISO 306:2004 (50N; 50°/h), preferably in a range of 120 to 148° $\text{C}$ ; (S5) at least one second outer layer (S5) containing a polymer (P1) having a Vicat softening temperature  $\geq 149^{\circ}\text{C}$ , preferably  $\geq 160^{\circ}\text{C}$ , further preferably  $\geq 170^{\circ}\text{C}$ , more preferably  $\geq 180^{\circ}\text{C}$ , determined according to ISO 306:2004 (50N; 50°/h). The invention also relates to a method for manufacturing such a multi-layer structure and to a security document containing same.

IPC 8 full level

**B32B 27/08** (2006.01); **B32B 7/027** (2019.01); **B32B 27/36** (2006.01)

CPC (source: EP)

**B32B 7/027** (2018.12); **B32B 27/08** (2013.01); **B32B 27/365** (2013.01); **B32B 2250/05** (2013.01); **B32B 2250/244** (2013.01);  
**B32B 2250/40** (2013.01); **B32B 2307/30** (2013.01); **B32B 2369/00** (2013.01)

Citation (search report)

See references of WO 2023285358A1

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 2023285358 A1 20230119**; CN 117642290 A 20240301; EP 4370334 A1 20240522

DOCDB simple family (application)

**EP 2022069279 W 20220711**; CN 202280049650 A 20220711; EP 22747685 A 20220711