

Title (en)

SPECIAL POLYMER LAYERS FOR FASTER LAMINABILITY OF MULTILAYER STRUCTURES

Title (de)

SPEZIELLE POLYMERSCHICHTEN ZUR SCHNELLEREN LAMINIERBARKEIT VON MEHRSCHICHTAUFBAUTEN

Title (fr)

COUCHES POLYMÈRES SPÉCIALES PERMETTANT LA STRATIFICATION PLUS RAPIDE DE STRUCTURES MULTICOUCHES

Publication

**EP 4370333 A1 20240522 (DE)**

Application

**EP 22747684 A 20220711**

Priority

- EP 21185504 A 20210714
- EP 2022069277 W 20220711

Abstract (en)

[origin: WO2023285356A1] The invention relates to a multilayer structure (MS) comprising (SI) at least one first polymer layer (SI) comprising  $\geq 95\%$  by weight, preferably  $\geq 98\%$  by weight, particularly preferably  $\geq 99\%$  by weight, based on the total weight of the polymer layer (SI), of a polymer (PI) selected from the group consisting of a polycarbonate, a co-polycarbonate or mixtures thereof 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;  $50^{\circ}/\text{h}$ ); (S2) at least one further polymer layer (S2) 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;  $50^{\circ}/\text{h}$ ), preferably in a range from  $120^{\circ}\text{C}$  to  $148^{\circ}\text{C}$ ; (S3) optionally at least one third polymer layer (S3) 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;  $50^{\circ}/\text{h}$ ). The invention further relates to a process for producing a multilayer structure (MS) and to a security document comprising such a multilayer structure according to the invention.

IPC 8 full level

**B32B 27/08** (2006.01); **B32B 27/36** (2006.01)

CPC (source: EP)

**B32B 27/08** (2013.01); **B32B 27/365** (2013.01); **B32B 2250/02** (2013.01); **B32B 2250/03** (2013.01); **B32B 2250/244** (2013.01); **B32B 2307/30** (2013.01); **B32B 2369/00** (2013.01)

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)

**EP 4119344 A1 20230118**; CN 117677499 A 20240308; EP 4370333 A1 20240522; WO 2023285356 A1 20230119

DOCDB simple family (application)

**EP 21185504 A 20210714**; CN 202280049646 A 20220711; EP 2022069277 W 20220711; EP 22747684 A 20220711