Title (en)

SHEET HAVING A TACTILE EFFECT AND AN INTERFERENTIAL EFFECT AND SECURITY DOCUMENT COMPRISING THE SAME

Title (de)

FOLIE MIT HAPTIK- UND INTERFERENZEFFEKT SOWIE SIE UMFASSENDE WERTSCHRIFT

Title (fr)

FEUILLE PRÉSENTANT UN EFFET TACTILE ET UN EFFET INTERFÉRENTIEL ET DOCUMENT DE SÉCURITÉ LA COMPORTANT

Publication

EP 2087170 B1 20151209 (FR)

Application

EP 07866532 A 20071031

Priority

- FR 2007052291 W 20071031
- FR 0609551 A 20061031

Abstract (en)

[origin: FR2907808A1] The sheet (1) useful in a safety document such as banknote, cheque, restaurant ticket, identity card, driving licence, passport, visa and certificate, comprises a support (2) and a securing means including contiguous or spaced zones having an interferential effect and a tactile recognition element placed in a same region of the zones, which are partially visible under direct observation. The tactile recognition element and the zones overlap partially and entirely, where the element is disposed to a surface of the zones and the support. The sheet (1) useful in a safety document such as banknote, cheque, restaurant ticket, identity card, driving licence, passport, visa and certificate, comprises a support (2) and a securing means including contiguous or spaced zones having an interferential effect and a tactile recognition element placed in a same region of the zones, which are partially visible under direct observation. The tactile recognition element and the zones overlap partially and entirely, where the element is disposed to a surface of the zones and the support and is partially incorporated in mass of the zones and the support. The zones and the element are in a form of continuous strip or motif, where a length of the strip is 0.5-4 cm. The securing means is in a form of alphamerical motif, drawing and/or symbol, where the motif has a fine structure with a length lower than 0.4 mm and a machine-legible code. The zones have interferential elements of iridescent pigments (6) such as mother of pearl, plastic pigments, mica based pigments and their mixtures, interferential elements of pigment-based liquid crystals, and a film having dielectric layers disposed between reflective metallic layers. The mica based pigments are coated with titanium dioxide. The tactile recognition element creates a relief to the surface of the support, and comprises particles (10-60 mu m) partially incorporated in the zones and the support of the sheet. The particles are in spherical, pyramidal, ovid or polyhedral shape and are made up of plastic material, glass, metal, silica or wax. The tactile recognition element has knitting structure and an interferential element with variable thickness, and has different tactile effects. The security means is equipped with an additional security element such as fluorescent. The support comprises cellulose based fiber and/or plastic material. Independent claims are included for: (1) a safety document; (2) an authentication article; and (3) a method of authenticating a safety document or an authentification article.

IPC 8 full level

D21H 21/40 (2006.01); **B42D 15/00** (2006.01); **D21H 21/44** (2006.01)

CPC (source: EP US)

B42D 25/29 (2014.10 - EP US); **D21H 21/40** (2013.01 - EP US); D21H 21/44 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2907808 A1 20080502; **FR 2907808 B1 20090116**; BR PI0718143 A2 20131105; BR PI0718143 B1 20180206; CA 2667645 A1 20080508; CA 2667645 C 20160607; EP 2087170 A2 20090812; EP 2087170 B1 20151209; ES 2563496 T3 20160315; HU E028248 T2 20161228; PL 2087170 T3 20160630; SI 2087170 T1 20160429; US 2010002303 A1 20100107; US 9512570 B2 20161206; WO 2008053130 A2 20080508; WO 2008053130 A3 20080626

DOCDB simple family (application)

FR 0609551 A 20061031; BR PI0718143 A 20071031; CA 2667645 A 20071031; EP 07866532 A 20071031; ES 07866532 T 20071031; FR 2007052291 W 20071031; HU E07866532 A 20071031; PL 07866532 T 20071031; SI 200731748 T 20071031; US 44492607 A 20071031