

Title (en)
SECURITY DOCUMENT COMPRISING MAGNETIC PARTICLES

Title (de)
SICHERHEITSDOKUMENT ENTHALTEND MAGNETISCHE PARTIKEL

Title (fr)
DOCUMENT DE SECURITE COMPORTANT DES PARTICULES MAGNETIQUES

Publication
EP 1034330 A1 20000913 (FR)

Application
EP 98955705 A 19981120

Priority

- FR 9802482 W 19981120
- FR 9714609 A 19971120

Abstract (en)

[origin: FR2771111A1] The security document has a substrate of paper or cardboard or an extruded plastics film, with at least one zone containing magnetic particles. The magnetic particles are integrated into the body of the substrate, or are bonded to its surface, without altering the visual appearance. The magnetic particles are evenly distributed in their zones. The magnetic particles are part of a security element for the document, such as a plastics strip embedded in or bonded to the surface of the substrate. The surface bonding is through layering with the substrate material or an adhesive composition with a paper substrate. The magnetic particles can be contained in a varnish or ink to be printed by heliogravure, offset printing or silk-screen printing. The security element is bonded to the substrate surface by an adhesive or by a plastics film containing the particles. The magnetic particles can be applied to a hologram or to the hologram bonding layer. The hologram is transparent or at least partially demetallized, fitted to a security strip which is at least part of the substrate and visible through sections which show at the document surface. The magnetic particles are bonded in position where there are positive or negative printings, on a security strip wholly or partially in the substrate. The magnetic particles can be contained in a heat sealing varnish applied to the security strip surface or integrated into the mass of the plastics strip. The magnetic particles can cover the whole surface of the substrate, or they can be arranged in different zones to show a magnetic code, which can be a barcode. The zones contain magnetic particles with a coercive force of 23.873×10^3 A/m (300 Oe) and pref. 79.577×10^3 A/m (1000 Oe) to give a magnetic register of a code. The magnetic particles are in a concentration of 0.1 wt% of the substrate and pref. 0.05 wt%, or 0.001-0.1 wt% and pref. 0.01-0.1 wt%. The magnetic particles comprise 1 wt% of the bonding or 0.01-0.1 wt%. The magnetic particle size is 2 μ m and pref. 1 μ m, or 0.1-1.0 μ m and pref. 0.1-0.5 μ m. The substrate is a paper with a light color and especially white, cream or a pale yellow. The bonding is transparent or translucent. The security strip has a thickness of 10-30 μ m and a width of 0.5 mm to 5.0 cm, and preferably 1-5 mm. An Independent claim is included for the security document production where the magnetic particles are mixed with the substrate material, such as the paper or cardboard pulp, or the bonding agent to be applied to the substrate surface.

IPC 1-7
D21H 21/48; **B42D 15/00**; **G07D 7/00**; **B42D 15/10**

IPC 8 full level
D21H 21/48 (2006.01); **G07D 7/04** (2006.01); **G07F 7/08** (2006.01); **D21H 19/02** (2006.01); **D21H 21/42** (2006.01)

CPC (source: EP US)
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