Title (en)

LASER-WRITABLE FILM

Title (de)

LASERBESCHRIFTBARE FOLIE

Title (fr)

FEUILLE POUVANT ETRE MARQUEE AU LASER

Publication

EP 1567363 B1 20070328 (DE)

Application

EP 03796055 A 20031125

Priority

- DE 10256470 A 20021203
- EP 0350894 W 20031125

Abstract (en)

[origin: WO2004050380A1] The opaque inscription layer (2) is applied to a portion of the underside of the transparent top film (1) and is comprised of thin lamellar metal particles (3) incorporated into a matrix material (4) like a printing ink. The inscription layer (2) can be applied to the underside of the top film (1) using printing techniques. Aluminum flakes are particularly well-suited for use as the metal particles (3) and can be commercially obtained in particle sizes of around 15 ñm with submicron thicknesses. When viewed through the top film, the inscription layer has a silvery white color of a high brilliance. Due to the incorporated metal particles (3), the inscription layer (2) depicts a medium that can be locally modified by irradiating it with a laser beam. The particle structure is effectively destroyed at the location of laser irradiation whereby rendering the inscription layer (2) locally transparent. When the laser beam is displaced over the inscription layer (2) along a path, which corresponds to the desired inscription, it leaves behind the inscription in the form of a transparent track.

IPC 8 full level

B41M 5/26 (2006.01); **B41M 5/24** (2006.01); B41M 3/14 (2006.01)

CPC (source: EP)

B41M 5/267 (2013.01); B41M 3/14 (2013.01)

Cited by

WO2023280673A1; CN114390977A; EP3178660A1; DE102021207161A1; EP3178660B1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 2004050380 A1 20040617; AT E358026 T1 20070415; AU 2003298321 A1 20040623; DE 10256470 A1 20040624; DE 50306929 D1 20070510; EP 1567363 A1 20050831; EP 1567363 B1 20070328; ES 2285247 T3 20071116

DOCDB simple family (application)

EP 0350894 W 20031125; AT 03796055 T 20031125; AU 2003298321 A 20031125; DE 10256470 A 20021203; DE 50306929 T 20031125; EP 03796055 A 20031125; ES 03796055 T 20031125