

Title (en)

Process and printed product for providing freely programmable printing images

Title (de)

Verfahren und Druckerzeugnis zur Erzeugung frei programmierbarer Druckbilder

Title (fr)

Procédé et article imprimé pour créer des images imprimés librement programmables

Publication

**EP 1491359 A3 20090617 (DE)**

Application

**EP 04013488 A 20040608**

Priority

DE 10328741 A 20030625

Abstract (en)

[origin: EP1491359A2] To give a printed image, with a freely programmable design for a visual effect, an ink is printed on the surface at least partially which contains at least one component which gives a variable appearance according to temperature. The printing is heated, at least locally, to give the required visual effect. The variable component is of liquid crystals.

IPC 8 full level

**B42D 15/10** (2006.01); **G02F 1/13** (2006.01); **B41M 1/18** (2006.01); **B41M 3/00** (2006.01); **B41M 5/28** (2006.01)

CPC (source: EP US)

**B41M 5/28** (2013.01 - EP US); **B42D 25/00** (2014.10 - EP US); **B42D 25/364** (2014.10 - US); **Y10T 428/24802** (2015.01 - EP US)

Citation (search report)

- [X] EP 1189079 A1 20020320 - TOPPAN PRINTING CO LTD [JP]
- [X] US 6010808 A 20000104 - NAITO KATSUYUKI [JP], et al
- [X] EP 0623909 A2 19941109 - STANDARD REGISTER CO [US]
- [X] US 6060428 A 20000509 - CHANG JOHN C H [US], et al
- [X] EP 0612037 A1 19940824 - NEDAP NV [NL]

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 PL PT RO SE SI SK TR

Designated extension state (EPC)

AL HR LT LV MK

DOCDB simple family (publication)

**EP 1491359 A2 20041229; EP 1491359 A3 20090617**; CA 2472136 A1 20041225; CN 100377886 C 20080402; CN 1590108 A 20050309; DE 10328741 A1 20050113; JP 2005014614 A 20050120; RU 2004119362 A 20051210; US 2005003168 A1 20050106

DOCDB simple family (application)

**EP 04013488 A 20040608**; CA 2472136 A 20040623; CN 200410060051 A 20040625; DE 10328741 A 20030625; JP 2004185338 A 20040623; RU 2004119362 A 20040624; US 87623904 A 20040624