Title (en)

Method for producing a heat-sensitive recording material

Title (de)

Verfahren zur Herstellung eines wärmeempfindlichen Aufzeichnungsmaterials

Title (fr)

Procédé de fabrication d'un matériel d'enregistrement sensible à la chaleur

Publication

EP 2487044 B1 20131023 (DE)

Application

EP 11157084 A 20110304

Priority

- EP 11154121 A 20110211
- EP 11157084 A 20110304

Abstract (en)

[origin: EP2487043A1] Producing a recording material comprises feeding a substrate; applying a first coating composition comprising 4,4'-dihydroxydiphenyl and a sensitizer to form a recording layer; drying the composition; applying a second coating composition comprising (meth)acrylates, photoinitiators and wax to form a protective layer; crosslinking the protective layer; applying the second coating composition to form a coating on back side of the substrate; and crosslinking the coating using high-energy radiation. Producing a heat-sensitive recording material with a substrate comprising a front and a back side, a color developer and a color acceptor containing heat-sensitive recording layer arranged on the front side of the substrate, a protective layer covering the thermosensitive recording layer and a coating on the back side of the substrate, comprises preparing a first coating composition comprising 85 wt.% of 4,4'-dihydroxydiphenyl, as color acceptor, and at least one sensitizer comprising methylol stearamide, stearic acid amide or dimethyl terephthalate; preparing a second coating composition comprising at least 65-95 wt.% of one or more (meth)acrylates comprising polyether(meth)acrylate, epoxy(meth)acrylate or urethane(meth)acrylate, 0-20 wt.% of photoinitiators and 0.5-20 wt. % of wax, where the amount of the second composition is 65.5-100 wt.%; continuously feeding the web-shaped substrate; applying the prepared first coating composition to form the heat-sensitive recording layer; drying the first coating composition; applying the second coating composition to form the protective layer; crosslinking the protective layer using high-energy radiation; applying the prepared second coating composition to form the coating on the back side of the substrate; and crosslinking the coating on the back side of the substrate using high-energy radiation.

IPC 8 full level

B41M 5/40 (2006.01)

CPC (source: EP US)

B41M 5/3275 (2013.01 - US); **B41M 5/3336** (2013.01 - EP US); **B41M 5/3372** (2013.01 - US); **B41M 5/3375** (2013.01 - EP US); **B41M 5/405** (2013.01 - EP US); B41M 5/44 (2013.01 - EP US); B41M 2205/34 (2013.01 - US); B41M 2205/36 (2013.01 - US); B41M 2205/38 (2013.01 - US); B41M 2205/40 (2013.01 - US)

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

DOCDB simple family (publication)

EP 2487043 A1 20120815; **EP 2487043 B1 20131009**; DK 2487044 T3 20140113; EP 2487044 A1 20120815; EP 2487044 B1 20131023; ES 2443162 T3 20140218; US 2014057783 A1 20140227; US 9079444 B2 20150714; WO 2012107504 A1 20120816; WO 2012107507 A1 20120816

DOCDB simple family (application)

EP 11154121 A 20110211; DK 11157084 T 20110304; EP 11157084 A 20110304; EP 2012052151 W 20120208; EP 2012052154 W 20120208; ES 11157084 T 20110304; US 201213984869 A 20120208