

Title (en)
Substrates with electrically conducting layers

Title (de)
Substrate mit elektrisch leitfähigen Schichten

Title (fr)
Substrats avec couches électriquement conductrices

Publication
EP 1357226 B1 20100811 (DE)

Application
EP 03008537 A 20030412

Priority
• AT 6142002 A 20020422
• AT 3082003 A 20030303
• CH 2702003 A 20030220

Abstract (en)
[origin: EP1357226A2] A substrate or film carries a layer of an electrically-conductive polymer. Independent claims are also included for (1) production of a substrate carrying an electrically-conductive layer by in-situ polymerization of a monomer or pre-polymer or by application of a polymer dispersion; (2) apparatus for applying the polymer dispersion, the monomer solution or the monomer/initiator or catalyst mixture in a solvent, the apparatus comprising a temperature-controlled application tank, plunge cylinder, application roller or printer; and (3) a magnetic pigment composition for use with the electrically-conductive product, the composition comprising pigments based on iron oxide, iron, nickel-cobalt or alloys, barium, cobalt-ferrite or hard or soft magnetic iron or steel in aqueous, solvent-free or solvent-containing dispersions such as nitrocellulose, acrylate polymer dispersions of mol. wt. 150,000-300,000, acrylate-urethane dispersions or acrylate-styrene or PVC (co)polymer dispersions.

IPC 8 full level
D21H 21/48 (2006.01); **B42D 15/00** (2006.01); **G06K 19/077** (2006.01); **G06K 19/08** (2006.01); **H01B 1/12** (2006.01)

CPC (source: EP)
B42D 25/29 (2014.10); **D21H 21/48** (2013.01)

Citation (examination)
• WO 0205360 A1 20020117 - SIEMENS AG [DE], et al
• BECKER E. ET AL: "A new structuring Technique for Polymer Integrated Circuits", PROCEEDINGS OF: FIRST INTERNATIONAL IEEE CONFERENCE ON POLYMERS AND ADHESIVES IN MICROELECTRONICS AND PHOTONICS, 21 October 2001 (2001-10-21), pages 95 - 97
• PEI Q. ET AL: "Electrochromic and highly stable poly(3,4-ethylenedioxythiophene) switches between opaque blue-black and transparent sky blue", POLYMER, vol. 35, no. 7, 1994, pages 1347 - 1351

Cited by
EP1841004A1; EP2966221A1; EP1562154A1; US8048605B2; US9368010B2; WO2004111338A1; WO2006042568A1; US10671192B2; WO2005012442A1; US8698863B2; US8753791B2; US8936901B2

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