

Title (en)
Substrates with electrically conducting layers

Title (de)
Substrate mit elektrisch leitfähigen Schichten

Title (fr)
Substrats avec couches électriquement conductrices

Publication
EP 1357226 A3 20040107 (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 1-7
D21H 21/48; **G06K 19/077**; **G06K 19/08**; **H01B 1/12**

IPC 8 full level
B42D 15/00 (2006.01); **D21H 21/48** (2006.01)

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

Citation (search report)
• [DX] DE 10025522 A1 20011129 - UNIV DRESDEN TECH [DE]
• [X] US 5176405 A 19930105 - KAULE WITTICH [DE], et al
• [X] US 6197418 B1 20010306 - CLOOTS TOM [BE], et al
• [X] EP 0615257 A2 19940914 - KONINKL PHILIPS ELECTRONICS NV [NL]
• [X] DE 19937262 A1 20010301 - SIEMENS AG [DE]
• [X] EP 1079397 A1 20010228 - AGFA GEVAERT NV [BE]
• [X] WO 0120691 A1 20010322 - KONINKL PHILIPS ELECTRONICS NV [NL], et al

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

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)
EP 1357226 A2 20031029; **EP 1357226 A3 20040107**; **EP 1357226 B1 20100811**; AT E477371 T1 20100815; DE 50312962 D1 20100923

DOCDB simple family (application)
EP 03008537 A 20030412; AT 03008537 T 20030412; DE 50312962 T 20030412