

Title (en)

Black non-magnetic composite particles for black toner and black toner using the same

Title (de)

Schwarze nicht-magnetische zusammengesetzte Teilchen für schwarze Toner und schwarze Toner, worin sie eingesetzt werden

Title (fr)

Particules composites, non-magnétiques, noires pour révélateurs noirs et révélateurs noirs les comprenant

Publication

EP 0945766 B1 20030514 (EN)

Application

EP 99302317 A 19990325

Priority

JP 10013698 A 19980326

Abstract (en)

[origin: EP0945766A2] Black non-magnetic composite particles for a Black toner of the present invention comprising: (a) hematite and/or iron oxide hydroxide particles having an average particle diameter of from 0.055 to 0.95 μm ; (b) a coating on the surface of said hematite and/or iron oxide hydroxide particles, comprising at least one organosilicon compound selected from: (1) organosilane compounds obtainable by drying or heat-treating alkoxy silane compounds, (2) polysiloxanes or modified polysiloxanes, and (3) fluoroalkyl organosilane compounds obtainable by drying or heat-treating fluoroalkylsilane compounds; and (c) carbon black fine particles adhered on said coating, which have a particle diameter of from 0.002 to 0.05 μm and which are present in an amount of from 1 to 25 parts by weight per 100 parts by weight of said hematite and/or iron oxide hydroxide particles.

IPC 1-7

G03G 9/09; **G03G 9/097**; **G03G 9/083**

IPC 8 full level

G03G 9/083 (2006.01); **G03G 9/09** (2006.01)

CPC (source: EP)

G03G 9/0838 (2013.01); **G03G 9/0839** (2013.01); **G03G 9/0902** (2013.01); **G03G 9/0904** (2013.01)

Cited by

EP1172706A1; EP1074980A1; EP1102245A1; EP1205811A3; EP1265108A1; US6420030B1; US6352776B1; US6677093B2; US6838218B2; KR100493130B1

Designated contracting state (EPC)

DE FR GB NL

DOCDB simple family (publication)

EP 0945766 A2 19990929; **EP 0945766 A3 20000223**; **EP 0945766 B1 20030514**; DE 69907795 D1 20030618; DE 69907795 T2 20040401

DOCDB simple family (application)

EP 99302317 A 19990325; DE 69907795 T 19990325