

Title (en)

Two-component type developer, developing method and image forming method

Title (de)

Entwickler des Zweikomponententyps, Entwicklungsverfahren und Bildherstellungsverfahren

Title (fr)

Révéléateur du type à deux composants, procédé de développement et procédé de formation d'image

Publication

EP 0708378 A2 19960424 (EN)

Application

EP 95306880 A 19950929

Priority

JP 26442894 A 19941005

Abstract (en)

A two-component type developer for developing an electrostatic image is constituted by at least a toner and a magnetic carrier. The toner has a weight-average particle size D_4 of at most 10 μm and a number-average particle size D_1 satisfying $D_4/D_1 \leq 1.5$. The magnetic carrier comprises composite particles comprising magnetic iron compound particles, non-magnetic metal oxide particles, and a binder comprising a phenolic resin. The composite particles contain the magnetic iron compound and the non-magnetic metal oxide in a total proportion of 80 - 99 wt. %. The magnetic iron compound particles have a number-average particle size r_a , and the non-magnetic metal oxide particles have a number-average particle size r_b satisfying $r_b/r_a > 1.0$.

IPC 1-7

G03G 9/10; **G03G 9/107**; **G03G 9/113**; **G03G 9/08**

IPC 8 full level

G03G 9/08 (2006.01); **G03G 9/10** (2006.01); **G03G 9/107** (2006.01); **G03G 13/09** (2006.01)

CPC (source: EP KR US)

G03G 9/0819 (2013.01 - EP); **G03G 9/1075** (2013.01 - EP KR US); **G03G 9/108** (2020.08 - EP KR US); **G03G 9/1085** (2020.08 - EP KR US); **G03G 9/10884** (2020.08 - EP KR US); **G03G 13/09** (2013.01 - EP)

Citation (applicant)

- US 2297691 A 19421006 - CARLSON CHESTER F
- US 3666363 A 19720530 - TANAKA HIROSHI, et al
- US 4071361 A 19780131 - MARUSHIMA GIICHI
- JP S59104663 A 19840616 - KONISHIROKU PHOTO IND
- JP H058424 B2 19930202

Cited by

DE102005018675A1; EP0999477A1; EP0801334A1; US5766814A; US6506531B1

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