

Title (en)

Method and unit for fixing toner on a support, in particular a printing support

Title (de)

Verfahren und Einrichtung zur Fixierung von Toner auf einem Träger bzw. einem Bedruckstoff

Title (fr)

Méthode et unité de fixage de toner sur un support, en particulier un support d'impression

Publication

EP 1217459 A3 20061115 (DE)

Application

EP 01127897 A 20011123

Priority

- DE 10064565 A 20001222
- DE 10145002 A 20010912

Abstract (en)

[origin: EP1217459A2] Method for fixing toner on a print medium such as paper using a microwave transmitter as a fixing device. The microwaves heat the print medium that causes melting of the toner. A toner is chosen that displays a large reduction in its elastic modulus when heating caused it to change from solid to liquid state. The ratio of liquid to solid elastic modulus is in the range 10^{-5} to 10^{-7} . An Independent claim is made for a device for fixing toner for a digital printer in which toner fixing is carried out using a microwave transmitter with appropriate shielding. Printing uses a resonator and optimally the ratio of toner elastic modulus before and after melding can be measured.

IPC 8 full level

G03G 9/08 (2006.01); **G03G 9/09** (2006.01); **G03G 15/20** (2006.01); **H05B 6/66** (2006.01); **H05B 6/80** (2006.01)

CPC (source: EP US)

G03G 9/0821 (2013.01 - EP US); **G03G 15/2007** (2013.01 - EP US)

Citation (search report)

- [DX] EP 0667732 A1 19950816 - IBM [US]
- [DX] US 4511778 A 19850416 - TAKAHASHI TOHRU [JP], et al
- [X] US 5631685 A 19970520 - GOORAY ARTHUR M [US], et al
- [X] US 4482239 A 19841113 - HOSONO NAGAO [JP], et al
- [X] US 4456368 A 19840626 - ISAKA KAZUO [JP], et al
- [A] DE 1802741 A1 19690619 - VARIAN ASSOCIATES
- [L] EP 1217462 A2 20020626 - NEXPRESS SOLUTIONS LLC [US]
- [L] EP 1217461 A2 20020626 - NEXPRESS SOLUTIONS LLC [US]
- [L] EP 1217460 A2 20020626 - NEXPRESS SOLUTIONS LLC [US]
- [X] PATENT ABSTRACTS OF JAPAN vol. 005, no. 060 (P - 058) 23 April 1981 (1981-04-23)

Cited by

EP1217462A3; EP1217460A3; EP1217461A3; WO2019170300A1; WO2019170299A1; EP1518152A2

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Designated extension state (EPC)

AL LT LV MK RO SI

DOCDB simple family (publication)

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