

Title (en)

Toner supply roll and production method therefore

Title (de)

Tonerzuführrolle und deren Herstellungsverfahren

Title (fr)

Rouleau de fourniture de toner et son procédé de fabrication

Publication

**EP 1091262 A3 20040114 (EN)**

Application

**EP 00121843 A 20001006**

Priority

JP 28795599 A 19991008

Abstract (en)

[origin: EP1091262A2] A toner supply roll comprises a shaft (1) and a soft polyurethane sponge layer (2) provided on an outer circumferential surface of the shaft, wherein not less than 90% of cell walls defining boundaries between respective adjacent cells have openings. The soft polyurethane sponge layer of the toner supply roll is of an open-cell foam structure in which the cells are three-dimensionally connected to one another via the openings in the cell walls, so that air contained in the sponge layer smoothly flows out when the sponge layer is depressed. Therefore, the sponge layer has a lower hardness than a soft polyurethane sponge layer of a closed-cells foam structure. Since not less than 90% of the cell walls defining the boundaries between the respective adjacent cells have openings, toner fluidity can properly be maintained. Therefore, the toner supply roll can minimise degradation of the toner during prolonged use and stably maintain toner scrapability and toner supplying capability, thereby ensuring formation of high quality images for an extended period of time. <IMAGE>

IPC 1-7

**G03G 15/08**

IPC 8 full level

**F16C 13/00** (2006.01); **G03G 15/08** (2006.01)

CPC (source: EP)

**G03G 15/0818** (2013.01); **G03G 2215/0863** (2013.01)

Citation (search report)

- [XY] US 5548382 A 19960820 - KOSHI MAKOTO [JP], et al
- [YA] EP 0789285 A2 19970813 - TOKAI RUBBER IND LTD [JP]
- [X] EP 0597444 A1 19940518 - KONISHIROKU PHOTO IND [JP]
- [Y] PATENT ABSTRACTS OF JAPAN vol. 1999, no. 13 30 November 1999 (1999-11-30)

Cited by

CN101819395A; EP2009513A3; EP2009512A3; EP2527926A3; US7991315B2; US7962057B2; US8160464B2; US8175476B2; US8285166B2; US8463148B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 1091262 A2 20010411**; **EP 1091262 A3 20040114**; JP 2001109251 A 20010420

DOCDB simple family (application)

**EP 00121843 A 20001006**; JP 28795599 A 19991008