

Title (en)  
Doctor blade

Title (de)  
Rakel

Title (fr)  
Racle

Publication  
**EP 1092535 A1 20010418 (EN)**

Application  
**EP 99308050 A 19991013**

Priority  
EP 99308050 A 19991013

Abstract (en)  
A doctor blade (3) that fills the cells of a gravure printing roller with ink and scrapes off any excess ink comprising a core (3a) composed of carbon steel or stainless steel and a diamond-like carbon coating (3c) coated on the core. An undercoat (3b) that is harder than the core (3a) and softer than the diamond-like carbon coating (3c) may be formed between the core and the diamond-like carbon coating. The diamond-like carbon coating (3c) is smooth and hard, has an extremely low Young's modulus, is a flexible film, slides easily over the plate surface, stays close to the water-based ink lying in the sandpaper marks formed in the non-printing area of a plate surface, and keeps the amount of ink that goes under the doctor blade to a minimum. The doctor blade has excellent wear resistance, favorable ink removal can be continued indefinitely, and plate fogging can be effectively avoided. No plate fogging occurs even when the printing is carried out at a practical printing speed and for an extended printing length. <IMAGE>

IPC 1-7  
**B41F 9/10**

IPC 8 full level  
**B41F 9/10** (2006.01)

CPC (source: EP)  
**B41F 9/1072** (2013.01); **B41N 10/005** (2013.01)

Citation (search report)  
• [XY] EP 0908309 A1 19990414 - MEYER ROLF [DE]  
• [Y] US 5778785 A 19980714 - BLACKWELL JOSEPH GORDON [FR]  
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• [A] EP 0728579 A1 19960828 - MEYER ROLF [DE]  
• [Y] PATENT ABSTRACTS OF JAPAN vol. 017, no. 622 (C - 1130) 17 November 1993 (1993-11-17)

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