

Title (en)  
APPLICATOR FOR DIRECTING COATING MATERIALS AT A SUBSTRATE

Publication  
**EP 0532659 A4 19950802 (EN)**

Application  
**EP 91911971 A 19910530**

Priority  
• US 53148190 A 19900530  
• US 64718691 A 19910124  
• US 69286191 A 19910429

Abstract (en)  
[origin: WO9118682A1] A process and apparatus for directing coating materials at a substrate with reduced production of mist and enhanced range of coating thickness and uniformity of coverage. A flow of coating liquid or fluid (821) is directed toward a substrate, and attenuated (826) in transit by a co-flowing impingement fluid (823). The impingement fluid is capable of attenuating liquid in the coating stream into droplets that form a fine mist (827). The mist is propelled toward the substrate (826) by the impingement fluid and deposited on the substrate. The aqueous liquid is preferably less than 100 DEG C, and directed through an outlet under a low pressure, for example, less than 12 psi (82 kPa, such that the liquid velocity is low (e.g. less than 1 meter/second). Process parameters may be varied to reduce grainy or streaky coatings, thereby assuring thorough coverage of a substrate even with very thin coatings.

IPC 1-7  
**B05D 1/02**

IPC 8 full level  
**B05B 13/04** (2006.01); **B05B 7/02** (2006.01); **B05B 7/08** (2006.01); **B05B 14/30** (2018.01); **B05B 15/04** (2006.01); **B05D 1/02** (2006.01)

CPC (source: EP KR)  
**B05B 7/025** (2013.01 - EP); **B05B 7/0861** (2013.01 - EP); **B05B 7/0884** (2013.01 - EP); **B05B 14/30** (2018.01 - EP); **B05C 5/0262** (2013.01 - EP); **B05C 5/027** (2013.01 - EP); **B05D 1/02** (2013.01 - KR)

Citation (search report)  
• [XAY] US 4377985 A 19830329 - REBA IMANTS  
• [X] EP 0249186 A1 19871216 - IKEUCHI KK [JP]  
• [YA] AT 349116 B 19790326 - WILFING FRANZ [AT], et al  
• See references of WO 9118682A1

Designated contracting state (EPC)  
DE FR GB SE

DOCDB simple family (publication)  
**WO 9118682 A1 19911212**; AU 8072491 A 19911231; CA 2084185 A1 19911201; EP 0532659 A1 19930324; EP 0532659 A4 19950802; FI 925404 A0 19921127; FI 925404 A 19921127; JP H05507439 A 19931028; KR 930700218 A 19930313

DOCDB simple family (application)  
**US 9103830 W 19910530**; AU 8072491 A 19910530; CA 2084185 A 19910530; EP 91911971 A 19910530; FI 925404 A 19921127; JP 51122591 A 19910530; KR 920703023 A 19921130