

Title (en)
CLAD COMPOSITE STENT

Title (de)
BESCHICHTETER VERBUNDSTENT

Title (fr)
EXTENSEUR COMPOSITE PLAQUE

Publication
EP 0758870 A1 19970226 (EN)

Application
EP 95913307 A 19950410

Priority
• IB 9500253 W 19950410
• US 23959594 A 19940509

Abstract (en)
[origin: WO9530384A2] A body compatible stent is formed of multiple filaments arranged in two sets of oppositely directed helical windings interwoven with one another in a braided configuration. Each of the filaments is a composite including a central core (24) and a case (26) surrounding the core (24). In the more preferred version, the core is formed of a radiopaque and relatively ductile material, e.g. tantalum or platinum. The outer case (26) is formed of a relatively resilient material, e.g. a cobalt/chromium based alloy. Favorable mechanical characteristics of the stent are determined by the case (26), while the core (24) enables in vivo imaging of the stent. The composite filaments are formed by a drawn filled tubing process in which the core (24) is inserted into a tubular case (26) of a diameter substantially more than the intended final filament diameter. The composite filament is cold-worked in several steps to reduce its diameter, and annealed between successive cold-working steps. After the final cold working step, the composite filament is formed into the desired shape and age hardened. Alternative composite filaments employ an intermediate barrier layer (86) between the case (26) and core (24), a biocompatible cover layer surrounding the case (26), and a radiopaque case (26) surrounding a structural core (24).

IPC 1-7
A61F 2/06; **A61L 27/00**

IPC 8 full level
A61F 2/06 (2006.01); **A61F 2/86** (2006.01); **A61F 2/90** (2006.01); **A61L 31/00** (2006.01); **A61L 31/02** (2006.01); **A61L 31/08** (2006.01); **A61L 31/18** (2006.01)

CPC (source: EP)
A61F 2/86 (2013.01); **A61F 2/90** (2013.01); **A61L 31/022** (2013.01); **A61L 31/082** (2013.01); **A61L 31/18** (2013.01); **D04C 1/06** (2013.01); **A61F 2210/0076** (2013.01); **A61F 2220/0016** (2013.01)

Citation (search report)
See references of WO 9530384A2

Designated contracting state (EPC)
CH DE FR GB IT LI

DOCDB simple family (publication)
WO 9530384 A2 19951116; **WO 9530384 A3 19951207**; CA 2188429 A1 19951116; CA 2188429 C 20001031; EP 0758870 A1 19970226; JP 3415158 B2 20030609; JP H09506025 A 19970617

DOCDB simple family (application)
IB 9500253 W 19950410; CA 2188429 A 19950410; EP 95913307 A 19950410; JP 52880295 A 19950410