

Title (en)
Fire-resistant composite beam.

Title (de)
Feuerwiderstandsfähiger Verbundträger.

Title (fr)
Poutre composite résistant au feu.

Publication
EP 0035634 A2 19810916 (DE)

Application
EP 81100521 A 19810124

Priority
DE 3009258 A 19800311

Abstract (en)
1. Fire-resistant composite beam (1) for columns, lighting-strip beams or the like, comprising at least one open steel section (3) whose hollow spaces are filled with concrete (2), wherein coupling means are provided on the internal walls of the steel section which project into the hollow spaces filled with concrete, and wherein the steel section (3) includes a web (11) connecting its outer parts and encompassed on both sides by concrete (2), characterized in that the ends (6) of the outer parts of the section (3) or of the section (5) are bent at right-angles to border the concrete (2), the web (11) of the section (3) encompassed by the concrete in the case of a one-part beam-cross-section and the webs (12) encompassed by the concrete in the case of a multi-part combined beam-cross-section are thicker-wall than the outer parts of the section or sections (3, 5), and the thick-walled web or webs (11, 12) encompassed by concrete have thin-walled small webs (7) directed away from the interior of the beam and whose ends have bulbous thickenings (8) which are likewise encompassed by the concrete (2) wherein the section (3, 5), including its profiling (9) provided on the internal wall surfaces, as well as the webs (11, 12, 7) and bulbous thickening (8), is made as a homogeneous extrusion.

Abstract (de)
Dieser feuerwiderstandsfähige Verbundträger (1) besteht aus einem offenen Stahlprofil, dessen Hohlräume mit Beton (2) ausgefüllt sind, wobei an den Innenwänden des Stahlprofils Verbundmittel angeordnet sind, die in die mit Beton (2) gefüllten Hohlräume ragen und mit dem Beton (2) verbunden sind. Um bei diesem Verbundträger (1) zusätzliche Bewehrungs- und Verdübelungsarbeiten zu vermeiden, besteht das Stahlprofil aus einem Strangpreßprofil (3,4,5), das z.B. einen I, C, C-profilähnlichen oder auch einen anderen offenen Querschnitt hat und dessen Innenseiten abstehende dünnwandige Stege (7, 15) aufweisen und/oder profiliert sind.

IPC 1-7
E04B 1/94; **E04C 3/293**

IPC 8 full level
E04B 1/94 (2006.01); **E04C 3/293** (2006.01)

CPC (source: EP)
E04B 1/943 (2013.01); **E04C 3/293** (2013.01)

Cited by
CN103015632A; US2016305114A1; US10385563B2

Designated contracting state (EPC)
BE FR NL

DOCDB simple family (publication)
EP 0035634 A2 19810916; **EP 0035634 A3 19811104**; **EP 0035634 B1 19831214**; DE 3009258 A1 19810917; DE 3009258 C2 19830623

DOCDB simple family (application)
EP 81100521 A 19810124; DE 3009258 A 19800311