

Title (en)

Fire protection system in a reinforced concrete tubings lined tunnel

Title (de)

Brandschutzsicherung für Tunnelausbau aus Stahlbetontübbings

Title (fr)

Système de protection contre l'incendie dans un revêtement de tunnel en forme de cuvelage en béton armé

Publication

**EP 0841468 B1 20040331 (DE)**

Application

**EP 96118802 A 19961123**

Priority

DE 19645604 A 19961106

Abstract (en)

[origin: EP0841468A1] The steel-reinforced concrete tubing is made out of regular concrete, and shows a reinforcement with steel fibre content of between 30 to 80 kilograms per cubic metre of fresh concrete. The rigid concrete also has additions of between 10 to 3000 grams of plastic fibres and/ or plastic spheres per cubic metre of fresh concrete. The content of steel fibres, on the one hand, and the additions of plastic fibres and/ or plastic spheres, on the other hand, is co-ordinated with one another. The steel reinforced tunnel is baked, at a temperature approaching 1,350 degrees centigrade, for about 120 minutes to provide fire-resistance.

IPC 1-7

**E21D 11/38**; **E21D 11/08**; **C04B 28/02**

IPC 8 full level

**C04B 28/02** (2006.01); **E21D 11/08** (2006.01); **E21D 11/38** (2006.01)

CPC (source: EP)

**E21D 11/08** (2013.01)

Cited by

EP1243752A1; AT414009B

Designated contracting state (EPC)

AT CH DE GB LI NL

DOCDB simple family (publication)

**EP 0841468 A1 19980513**; **EP 0841468 B1 20040331**; AT E263308 T1 20040415; DE 19645604 A1 19980507; DE 59610957 D1 20040506

DOCDB simple family (application)

**EP 96118802 A 19961123**; AT 96118802 T 19961123; DE 19645604 A 19961106; DE 59610957 T 19961123