

Title (en)
Steel cord with high elongation at break

Title (de)
Stahlseil mit hoher Bruchdehnung

Title (fr)
Câble d'acier avec allongement à la rupture élevé

Publication
EP 0790349 A1 19970820 (EN)

Application
EP 97200163 A 19970122

Priority

- EP 97200163 A 19970122
- EP 96200381 A 19960215

Abstract (en)
A steel cord (10) adapted for the reinforcement of an elastomer comprises steel filaments (12,14) of a pearlitic structure. The steel cord has a plastic and elastic elongation at break of x % and a plastic and elastic elongation capability in the vulcanized elastomer of y %, the values x and y fulfilling following equation : <MATH> which means that the total elongation at break does not reduce considerably after embedding the steel cord into an elastomer. The steel core (10) has a high elongation capability which is largely independent of the structure of the steel cord. <IMAGE> <IMAGE>

IPC 1-7
D07B 1/06; D07B 5/12

IPC 8 full level
D07B 1/06 (2006.01); **D07B 5/12** (2006.01)

CPC (source: EP)
D07B 1/062 (2013.01); **D07B 5/12** (2013.01); **D07B 1/0646** (2013.01); **D07B 2201/1072** (2013.01); **D07B 2201/2008** (2013.01);
D07B 2201/2009 (2013.01); **D07B 2201/2011** (2013.01); **D07B 2201/2022** (2013.01); **D07B 2201/2023** (2013.01); **D07B 2201/2032** (2013.01);
D07B 2201/2046 (2013.01); **D07B 2201/206** (2013.01); **D07B 2201/2061** (2013.01); **D07B 2201/2081** (2013.01); **D07B 2205/3025** (2013.01);
D07B 2205/3089 (2013.01); **D07B 2207/204** (2013.01); **D07B 2207/404** (2013.01); **D07B 2401/201** (2013.01); **D07B 2401/208** (2013.01);
D07B 2501/2046 (2013.01)

C-Set (source: EP)
1. **D07B 2205/3025 + D07B 2801/10**
2. **D07B 2205/3089 + D07B 2801/18**

Citation (applicant)

- US 4408444 A 19831011 - BAILLIEVIER FREDDY [BE]
- US 5020312 A 19910604 - WATAKABE HIDENORI [JP]
- EP 0462716 A1 19911227 - TOKUSEN KOGYO COMPANY LIMITED [JP]
- WO 9516816 A1 19950622 - BEKAERT SA NV [BE]

Citation (search report)

- [A] GB 1427999 A 19760310 - MONSANTO CO
- [A] EP 0157045 A1 19851009 - BRIDGESTONE CORP [JP]

Cited by
US6119747A; EP0893282A3; US10683608B2; US6475636B1; US7562684B2; US7337604B2; WO2009144746A1; WO2004048157A1;
WO0190478A1; WO2005014925A1; US6883843B2; US7007990B2; US7111882B2; US8381505B2; EP1655179A1; WO2006048359A1;
US6887806B2; US7487803B2; EP1454822A2

Designated contracting state (EPC)
AT BE DE DK ES FI FR GB GR IE IT LU NL SE

DOCDB simple family (publication)
EP 0790349 A1 19970820; EP 0790349 B1 20000628

DOCDB simple family (application)
EP 97200163 A 19970122