

Title (en)  
A HIGH-STRENGTH LIGHT-WEIGHT ROPE WITH A SHAPED CORE

Title (de)  
HOCHFESTES LEICHTES SEIL MIT PROFILIERTER SEELE

Title (fr)  
CORDAGE LEGER HAUTEMENT RESISTANT POURVU D'UNE AME FACONNEE

Publication  
**EP 1546449 B1 20181031 (EN)**

Application  
**EP 03791172 A 20030901**

Priority

- IS 0300025 W 20030901
- IS 6536 A 20020830

Abstract (en)  
[origin: WO2004020732A2] A rope with high stiffness and breaking strength is provided. The rope is produced by providing a stiff core (1) and fibre rope jacket (4) surrounding the core and by changing the phase condition of the core while stretching the rope, such that inside vacancies between the fibre rope jacket (4) and the core (1) are eliminated permanently. A method and apparatus for producing such rope are provided, wherein the core (1) is heated up and stretched such that it will be permanently elongated. In a preferred embodiment the thermoplastic core (1) changes from solid phase to liquid phase by means of heating. While in liquid phase the core material adapts to the encapsulating space of the surrounding sheet. The rope is then cooled down under tension until the core has returned to solid phase.

IPC 8 full level  
**D07B 1/16** (2006.01); **D07B 7/16** (2006.01)

CPC (source: EP)  
**D07B 1/165** (2013.01); **D07B 5/12** (2013.01); **D07B 7/16** (2013.01); **D07B 1/025** (2013.01); **D07B 2201/102** (2013.01); **D07B 2201/1096** (2013.01); **D07B 2201/2048** (2013.01); **D07B 2201/2053** (2013.01); **D07B 2201/2066** (2013.01); **D07B 2201/2088** (2013.01); **D07B 2201/209** (2013.01); **D07B 2205/2003** (2013.01); **D07B 2205/2014** (2013.01); **D07B 2205/205** (2013.01); **D07B 2205/2064** (2013.01); **D07B 2205/2096** (2013.01); **D07B 2205/3025** (2013.01); **D07B 2207/4045** (2013.01); **D07B 2207/4059** (2013.01); **D07B 2401/205** (2013.01); **D07B 2401/2055** (2013.01); **D07B 2501/2038** (2013.01)

Citation (examination)

- EP 1033435 A1 20000906 - BEKAERT SA NV [BE]
- US 3686855 A 19720829 - FALCY BERNARD C, et al
- WO 0050687 A1 20000831 - WIRE ROPE IND LTD IND DE CABLE [CA], et al

Cited by  
EP3422846A4

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2004020732 A2 20040311**; **WO 2004020732 A3 20050407**; AU 2003259549 A1 20040319; AU 2003259549 A8 20040319; EP 1546449 A2 20050629; EP 1546449 B1 20181031; IS 2927 B 20150915; IS 7779 A 20050330; NO 20050842 L 20050309; NO 331468 B1 20120109; NZ 543203 A 20070629

DOCDB simple family (application)  
**IS 0300025 W 20030901**; AU 2003259549 A 20030901; EP 03791172 A 20030901; IS 7779 A 20050330; NO 20050842 A 20050216; NZ 54320303 A 20030901