

Title (en)

TWO-LAYER MULTI-STRAND CABLE HAVING AN IMPROVED SURFACE ENERGY-TO-BREAK

Title (de)

ZWEISCHICHTIGES MEHRADRIGES KABEL MIT EINER VERBESSERTEN OBERFLÄCHENERGIE BIS ZUM BRUCH

Title (fr)

CÂBLE MULTI-TORONS À DEUX COUCHES À ÉNERGIE DE RUPTURE SURFACIQUE AMÉLIORÉE

Publication

**EP 4061996 A1 20220928 (FR)**

Application

**EP 20817463 A 20201105**

Priority

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Abstract (en)

[origin: WO2021099712A1] The invention relates to a multi-strand cable (50) comprising a cable inner layer (CI) consisting of K=1 inner strand (TI) that has two plies (C1, C3), the inner ply (C1) consisting of Q inner metal wires (F1) and the outer ply (C3) consisting of N outer metal wires (F3), and a cable outer layer (CE) consisting of L>1 outer strands (TE) that have two plies (CT, C3') and are wound around the inner layer (CI) of the cable, the inner ply (C1) consisting of Q' inner metal wires (FT) and the outer ply (C3') consisting of N' outer metal wires (F3'). The cable (50) has a surface energy-to-break  $ES > 145 \text{ N.mm}^{-1}$ , with  $ES = \sum f_{St} F_{mi} \times \sum f_{St} A_{ti} / N_{cx} C_{frag} / D$ , where  $\sum f_{St} F_{mi}$  is the sum of the forces at rupture for Nc wires,  $\sum f_{St} A_{ti}$  is the sum of the total elongation of the Nc wires, Cfrag is the coefficient of embrittlement of the cable (50), and D is the diameter of the cable (50).

IPC 8 full level

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C-Set (source: EP)

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