Title (en)

MULTI-LAYERED STEEL CORD FOR TYRE REINFORCEMENT

Title (de)

MEHRLAGIGER STAHL?KORD FÜR REIFENARMIERUNG

Title (fr)

CABLE D'ACIER MULTICOUCHES POUR ARMATURE DE SOMMET DE PNEUMATIQUE

Publication

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Application

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Priority

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Abstract (en)

[origin: WO02053827A1] A multi-layered steel cord with an outer unsaturated layer, which can be used as a tyre crown reinforcement, comprising a core with a diameter d>o< surrounded by an intermediary layer (C1) of four or five wires (N = 4 or 5) with a diameter d>1<, all wound into a helix with a pitch p>1<. Layer C1 is surrounded by an outer layer (C2) of P wires with a diameter d>2<, all wound into a helix with a pitch p>2<, and with P having a value 1 to 3 less than the maximum number P>max< of wires that can be wound into a layer around layer C1. The inventive steel cord has the following characteristics (d>0<, d>1<, d>2<, p>1< and p>2< in mm): - (i) 0.1 </= d>0< < 0.5; - (ii) 0.25 </= d>1< < 0.4; - (iii) 0.25 </= d>2< < 0.4; - (iv) for N = 4: 0.4 < (d>0</d>1<) < 0.8; for N = 5: 0.7 < (d>0</d>1<) < 1.1; - (v) 4.8 pi (d>0< + d>1<) < p>1< < p>2< < 5.6 pi (d>0< + 2d>1< + d>2<); - (vi) the wires of layers C1 and C2 are wound in the same direction of twist. In addition, the invention relates to semi-finished articles and products made of plastic and/or rubber reinforced by such a multi-layered steel cord, notably radial tyres and belt bracing plies therefor.

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