

Title (en)
MULTILAYER STEEL CABLE FOR A TIRE CARCASS

Title (de)
MEHRLAGIGES STAHLSEIL FÜR DIE KARKASSE EINES LUFTREIFENS

Title (fr)
CABLE D'ACIER MULTICOUCHES POUR CARCASSE DE PNEUMATIQUE

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Application
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Abstract (en)
[origin: WO0149926A1] The invention relates to a multilayer cable with an unsaturated outer layer for use as an element for reinforcing the frame of a tire carcass, comprising a core which has a diameter d_0 and which is surrounded by an intermediate layer (C1). Said intermediate layer consists of 4 or 5 wires ($M = 4$ or 5) which have a diameter d_1 and which are wound together in a spiral according to a lay p_1 . Said layer (C1) is itself surrounded by an outer layer (C2) consisting of N wires which have a diameter d_2 and which are wound together in a spiral according to a lay p_2 , N being less than the maximum number N_{\max} of wires that can be wound around the layer (C1) in a spiral by 1 to 3. The cable has the following characteristics (d_0 , d_1 , d_2 , p_1 and p_2 in mm): (i) $0,08 < d_0 < 0,28$; (ii) $0,15 < d_1 < 0,28$; (iii) $0,12 < d_2 < 0,25$; (iv) for $M = 4$: $0,40 < (d_0/d_1) < 0,80$; for $M = 5$: $0,70 < (d_0/d_1) < 1,10$; (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) being wound in the same direction of twist. The invention also relates to plastic and/or rubber items or semi-finished products which are reinforced by a multilayer cable of this type, especially tires for industrial vehicles, especially heavy vehicles tires and their carcass belts.

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