

Title (en)  
TEMPERABLE COATINGS COMPRISING DIAMOND-LIKE CARBON

Title (de)  
TEMPERBARE BESCHICHTUNGEN MIT DIAMANTÄHNLICHEM KOHLENSTOFF

Title (fr)  
REVÊTEMENTS THERMIQUEMENT CONDITIONNABLES PRÉSENTANT DU CARBONE SIMILAIRE AU DIAMANT

Publication  
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Application  
**EP 18739879 A 20180719**

Priority  
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Abstract (en)  
[origin: WO2019020485A1] The invention relates to a coated substrate, wherein the coating comprises, starting from the substrate in this order: a) a layer of diamond-like carbon (DLC), b) a metal single ply or multi-ply layer, and c) an oxygen barrier layer, wherein the metal single ply or multi-ply layer contains b1) tin, or tin and at least one alloying element for tin, which are unalloyed or alloyed, or b2) magnesium and at least one alloying element for magnesium, which are unalloyed or alloyed. The coated substrate according to the invention protects the DLC layer, as a result of which said layer can be tempered. The coating has good mechanical stability and good ageing resistance before thermal treatment. The use according to the invention of relatively non-reactive materials is advantageous with respect to EHS. The protective layer can easily be removed after the tempering process. Then a DLC coating of exceptional quality and high scratch resistance is obtained.

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