

Title (en)
COATED STEEL SHEET AND HIGH STRENGTH PRESS HARDENED STEEL PART AND METHOD OF MANUFACTURING THE SAME

Title (de)
BESCHICHTETES STAHLBLECH UND HOCHFESTES PRESSGEHÄRTETES STAHLTEIL UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
TÔLE D'ACIER REVÊTUE, PIÈCE EN ACIER TREMPÉ SOUS PRESSE À HAUTE RÉSISTANCE ET LEUR PROCÉDÉ DE FABRICATION

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Application
EP 21819985 A 20211203

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Abstract (en)
[origin: WO2022129995A1] The invention deals with a coated steel sheet and press hardened steel part having a composition comprising, by weight percent: C 0.26-0.40%, Mn 0.5-1.8%, Si 0.1-1.25%, Al 0.01 -0.1%, Cr 0.1 -1.0%, Ti 0.01 -0.1%, B 0.001 -0.004%, $P \leq 0.020\%$, $S \leq 0.010\%$, $N \leq 0.010\%$ the remainder of the composition being iron and unavoidable impurities resulting from the smelting. The press hardened steel part comprises a bulk having a microstructure comprising, in surface fraction, more than 95% of martensite and less than 5% of bainite, a coating layer at the surface of the steel part, a ferritic interdiffusion layer between the coating layer and the bulk, and a ratio between the ferritic grain width in the interdiffusion layer GW_{int} over prior austenite grain size in the bulk $PAGS_{bulk}$, satisfying following equation ($GW_{int} / PAGS_{bulk} - 1 \geq 30\%$).

IPC 8 full level
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CPC (source: EP KR US)
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