

Title (en)  
STEEL WITH REDUCED DENSITY AND METHOD FOR PRODUCING A STEEL FLAT OR LONG PRODUCT MADE FROM SUCH STEEL

Title (de)  
STAHL MIT REDUZIERTER DICHTHE UND VERFAHREN ZUR HERSTELLUNG EINES STAHLFLACH- ODER -LANGPRODUKTS AUS EINEM SOLCHEN STAHL

Title (fr)  
ACIER A EPAISSEUR REDUITE ET PROCEDE DE FABRICATION D'UN PRODUIT ALLONGE OU PLAT EN ACIER A PARTIR D'UN TEL ACIER

Publication  
**EP 3225702 B1 20200325 (DE)**

Application  
**EP 16162652 A 20160329**

Priority  
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Abstract (en)  
[origin: WO2017167778A1] The invention relates to an iron-based reduced-density material, the mechanical properties of which make said material suitable for a broad range of applications, in particular in the automotive industry. For this purpose, the steel has a density of less than 7.25 kg/dm<sup>3</sup> according to the invention and consists of (in wt%) C: up to 0.20%, Si: 0.1 - 3.50%, Mn: 0.1 - 3.50%, N: up to 0.020%, S: up to 0.40%, P: up to 0.009%, Al: 6.0 - 25.0%, Ti: 0.55 - 10.0%, Cr: up to 6.0%, Mo: up to 3.0%, Ni: up to 4.0%, V: up to 1.0%, W: up to 1.0%, Cu: up to 4%, B: up to 0.08%, Nb: up to 1.5%, the remainder iron and unavoidable production-related impurities. The microstructure of the steel has more than 85 vol% ferrite and up to 10 vol% austenite and, as the remainder, contents of intermetallic phases and fractions of carbide, nitride, bainite, or pearlite.

IPC 8 full level  
**C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/08** (2006.01); **C22C 38/12** (2006.01); **C22C 38/14** (2006.01); **C22C 38/16** (2006.01); **C22C 38/18** (2006.01); **C22C 38/20** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01); **C22C 38/26** (2006.01); **C22C 38/28** (2006.01); **C22C 38/32** (2006.01); **C22C 38/34** (2006.01); **C22C 38/38** (2006.01); **C22C 38/40** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP US)  
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Cited by  
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