

Title (en)

STEEL SECTION HAVING A THICKNESS OF AT LEAST 100MM AND METHOD OF MANUFACTURING THE SAME

Title (de)

STAHLPROFIL MIT EINER DICKE VON MINDESTENS 100 MM UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

PROFILÉ EN ACIER D'UNE ÉPAISSEUR D'AU MOINS 100 MM ET SON PROCÉDE DE FABRICATION

Publication

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Application

**EP 18833715 A 20181212**

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Abstract (en)

[origin: WO2019123115A1] The invention deals with a steel section, comprising a web central portion connected on each side to a flange portion having a thickness of at least 100mm, such steel section having a composition comprising, in weight percentage: C : 0.06 - 0.16 % Mn : 1.10 - 2.00 % Si : 0.10 - 0.40 % Cu : 0.001 - 0.50 % Ni : 0.001 - 0.30 % Cr : 0.001 - 0.50 % Mo : 0.001 - 0.20 % V : 0.06 - 0.12 % N : 0.0050% - 0.0200 % Al  $\leq$  0.040 % P  $\leq$  0.040 % S  $\leq$  0.030 % and comprising optionally one or more of the following elements, in weight percentage: Ti < 0.005 % Nb  $\leq$  0.05 % the remainder being iron and impurities resulting from elaboration, and said steel section microstructure including at least one kind of vanadium precipitates possibly comprising also one or more metal chosen among chromium, manganese and iron, said precipitates being chosen among nitrides, carbides, carbo-nitrides or any combination of them, more than 70% of such precipitates having a mean diameter below 6 nm. It also deals with a manufacturing method thereof.

IPC 8 full level

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