

Title (en)
FECO- OR FESI- OR FE-ALLOY SHEET OR STRIP AND ITS MANUFACTURING PROCESS, TRANSFORMER MAGNETIC CORE MADE FROM IT AND TRANSFORMER CONTAINING IT

Title (de)
FEINBLECH ODER STREIFEN AUS EINER FECO- ODER FESI- ODER FE-LEGIERUNG, HERSTELLUNGSVERFAHREN DAFÜR, DARAUS HERGESTELLTER TRANSFORMATORMAGNETKERN UND TRANSFORMATOR DEN TRANSFORMATORMAGNETKERN ENTHALTEND

Title (fr)
TÔLE OU BANDE EN ALLIAGE FECO OU FESI OU EN FE ET SON PROCÉDÉ DE FABRICATION, NOYAU MAGNÉTIQUE DE TRANSFORMATEUR RÉALISÉ À PARTIR D'ELLE ET TRANSFORMATEUR LE COMPORTANT

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Abstract (en)

[origin: WO2017016604A1] The invention relates to a cold-rolled, annealed ferrous alloy sheet or strip (1), characterised in that it consists of (by weight percentage): traces \leq Co \leq 40%; if Co \geq 35%, traces \leq Si \leq 1%; if traces \leq Co $<$ 35%, traces \leq Si \leq 3.5%; if Co $<$ 35%, Si + 0.6 %Al \leq 4.5 – 0.1 %Co; traces \leq Cr \leq 10%; traces \leq V + W + Mo + Ni \leq 4%; traces \leq Mn \leq 4%; traces \leq Al \leq 3%; traces \leq S \leq 0.005%; traces \leq P \leq 0.007%; traces \leq Ni \leq 3%; traces \leq Cu \leq 0.5%; traces \leq Nb \leq 0.1%; traces \leq Zr \leq 0.1%; traces \leq Ti \leq 0.2%; traces \leq N \leq 0.01%; traces \leq Ca \leq 0.01%; traces \leq Mg \leq 0.01%; traces \leq Ta \leq 0.01%; traces \leq B \leq 0.005%; traces \leq O \leq 0.01%; the remainder being iron and impurities resulting from production. The sheet or strip is also characterised in that, for 1.8 T induction, the maximum deviation (Max $\Delta\lambda$) between the magnetostriction deformation values λ , which are measured both parallel to the magnetic field (Ha) applied ($\lambda//H$) and perpendicularly to the magnetic field (Ha) applied ($\lambda\perp H$) over three rectangular samples (2, 3, 4) of the sheet or strip, of which the large sides are parallel to the sheet or strip rolling direction (DL), parallel to the cross direction (DT) of the sheet or strip, and parallel to the direction forming an angle of 45° with the rolling direction (DL) and the cross direction (DT), is at most 25ppm. The sheet or strip is further characterised by its recrystallisation rate of between 80 à 100%. The invention also relates to a method for producing such a sheet or strip, a magnetic transformer core produced using said sheet or strip, and a transformer comprising same.

IPC 8 full level
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CPC (source: EP KR RU US)
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- EP 3162907 A1 20170503 - NIPPON STEEL & SUMITOMO METAL CORP [JP]

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