

Title (en)

FERRITIC STAINLESS STEEL SHEET HAVING EXCELLENT HEAT RESISTANCE

Title (de)

FERRITISCHES EDELSTAHLBLECH MIT HERVORRAGENDER HITZERESISTENZ

Title (fr)

FEUILLE D'ACIER INOXYDABLE FERRITIQUE AVEC UNE EXCELLENTE RÉSISTANCE À LA CHALEUR

Publication

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Application

EP 13851279 A 20131030

Priority

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Abstract (en)

[origin: EP2915894A1] The present invention provides a Sn-containing ferritic stainless steel sheet having excellent heat resistance. The ferritic stainless steel contains, in terms of mass %, 0.015% or less of C, 1.5% or less of Si, 1.5% or less of Mn, 0.035% or less of P, 0.015% or less of S, 13-21% of Cr, 0.01-0.50% of Sn, 0.05-0.60% of Nb and 0.020% or less of N, with the remainder consisting of Fe and unavoidable impurities. The ferritic stainless steel satisfies formula 1 and formula 2, and has a grain boundary Sn concentration of 2 atom % or less when subjected to a heat treatment at 600-750°C in which the value of L, as shown in formula 3, is 1.91×10^4 or higher. $8 \# = \text{Cl} = (\text{Ti} + 0.52\text{Nb}) / (\text{C} + \text{N}) \# = 26$ (formula 1) $\text{GBSV} = \text{Sn} + \text{Ti} - 2\text{Nb} - 0.3\text{Mo} - 0.2 \# = 0$ (formula 2) $L = (273 + T) (\log(t) + 20)$ (formula 3) T: Temperature (°C), t: time (h)

IPC 8 full level

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