

Title (en)
FERRITIC STAINLESS STEEL SHEET, METHOD FOR THE PRODUCTION THEREOF, AND USE OF SAME, ESPECIALLY IN EXHAUST LINES

Title (de)
BLECH AUS FERRITISCHEM EDELSTAHL, VERFAHREN ZUR HERSTELLUNG UND VERWENDUNG, INSBESONDERE IN ABGASLEITUNGEN

Title (fr)
TÔLE D'ACIER INOXYDABLE FERRITIQUE, SON PROCÉDÉ DE FABRICATION, ET SON UTILISATION, NOTAMMENT DANS DES LIGNES D'ÉCHAPPEMENT

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Abstract (en)
[origin: WO2014033372A1] The invention relates to a ferritic stainless steel sheet of the following composition expressed in weight percentages: trace <= C <= 0.03%; 0.2% <= Mn <= 1%; 0.2 % <= Si <= 1%; trace <= S <= 0.01%; trace <= P <= 0.04%; 15% <= Cr <= 22%; trace <= Ni <= 0.5%; trace <= Mo <= 2%; trace <= Cu <= 0.5%; 0.160% <= Ti <= 1%; 0.02% <= Al <= 1%; 0.2% <= Nb <= 1%; trace <= V <= 0.2%; 0.009% <= N <= 0.03%; trace <= Co <= 0.2%; trace <= Sn <= 0.05%; rare earths (REE) <= 0.1%; trace <= Zr <= 0.01%; the rest of the composition consisting of iron and inevitable impurities resulting from the processing thereof; the Al and rare earth (REE) contents satisfying the relation: Al + 30 x REE >= 0.15%; the Nb, C, N and Ti contents in % satisfying the relation: 1 / [Nb + (7/4) x Ti - 7 x (C + N)] <= 3; said sheet having an entirely recrystallised structure and an average ferritic grain size of between 25 and 65 µm. The invention also relates to a method for the production of such a ferritic stainless steel sheet, and to the use thereof for the production of parts involving shaping and welding, that are to be subjected to a periodic use temperature of between 50° C and 700° C and to a projection of a mixture of water, urea and ammonia.

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