

Title (en)
FERRITIC STAINLESS STEEL WITH EXCELLENT RIDGING PROPERTY AND SURFACE QUALITY AND MANUFACTURING METHOD THEREFOR

Title (de)
FERRITISCHER EDELSTAHL MIT HERVORRAGENDER RIDGING-EIGENSCHAFT UND OBERFLÄCHENGÜTE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
ACIER INOXYDABLE FERRITIQUE PRÉSENTANT UNE EXCELLENTE PROPRIÉTÉ DE FORMATION DE STRIES ET UNE EXCELLENTE QUALITÉ DE SURFACE, ET SON PROCÉDÉ DE FABRICATION

Publication
EP 3556888 A4 20191023 (EN)

Application
EP 17881883 A 20170704

Priority

- KR 20160169696 A 20161213
- KR 2017007099 W 20170704

Abstract (en)
[origin: EP3556888A1] Disclosed herein are a ferritic stainless steel having excellent ridging properties and excellent surface quality of a final product by modifying a microstructure of a central area of a cross-section by further performing cold rolling before hot annealing. A ferritic stainless steel according to the present disclosure includes, by wt%, 0.005 to 0.1% of carbon (C), 0.01 to 2.0% of silicon (Si), 0.01 to 1.5% of manganese (Mn), 0.05% or less of phosphorus (P), 0.005% or less of sulfur (S), 10 to 30% of chromium (Cr), 0.005 to 0.1% of nitrogen (N), 0.005 to 0.2% of aluminum (Al), and the remainder of iron (Fe) and other impurities, wherein a γ value is in the range of 20% to less than 50%, and a surface microgroove area ratio is 2.0% or less.

IPC 8 full level
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Citation (search report)

- [X1] US 4394188 A 19830719 - HARASE JIROU [JP], et al
- [AD] KR 20080061863 A 20080703 - POSCO [KR]
- [A] US 2010269887 A1 20101028 - REYAL JEAN-PIERRE [FR], et al
- [A] KR 20030050695 A 20030625 - POSCO [KR]
- [A] JP H1046293 A 19980217 - NIPPON STEEL CORP
- [A] US 2005241737 A1 20051103 - UJIRO TAKUMI [JP], et al
- See also references of WO 2018110785A1

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