

Title (en)

FERRITIC STAINLESS STEEL WITH IMPROVED STRENGTH, WORKABILITY, AND CORROSION RESISTANCE

Title (de)

FERRITISCHER EDELSTAHL MIT VERBESSERTER FESTIGKEIT, BEARBEITBARKEIT UND KORROSIONSBESTÄNDIGKEIT

Title (fr)

ACIER INOXYDABLE FERRITIQUE PRÉSENTANT UNE RÉSISTANCE, UNE OUVRABILITÉ ET UNE RÉSISTANCE À LA CORROSION AMÉLIORÉES

Publication

EP 4249622 A1 20230927 (EN)

Application

EP 21894831 A 20210826

Priority

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Abstract (en)

Disclosed is a ferritic stainless steel with improved strength, workability, and corrosion resistance, which may be applied to various industrial fields, such as washing machines, refrigerators, and all kinds of electric home appliances. An embodiment of the disclosed ferritic stainless steel comprises, in percent by weight (wt%), 0.0005 to 0.02% of C, 0.005 to 0.02% of N, 0.7 to 1.0% of Si, 16.0 to 17.0% of Cr, 0.05 to 0.3% of Ti, and the balance being Fe and inevitable impurities, wherein the ferritic stainless steel has a value of Formula (1) below satisfying 21 to 25, a tensile strength of 470 MPa or more, and an elongation of 27% or more. $7 \times \text{Si} + \text{CrIn}$ Formula (1), Si and Cr represent the contents (wt%) of the respective elements.

IPC 8 full level

C22C 38/28 (2006.01); **C22C 38/02** (2006.01)

CPC (source: EP KR US)

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Citation (search report)

See references of WO 2022108058A1

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