

Title (en)
Ni-reduced austenite stainless steel

Title (de)
Austenitischer Edelstahl mit reduziertem Nickelanteil

Title (fr)
Acier inoxydable austénitique à teneur réduite en Ni

Publication
EP 2025770 A1 20090218 (EN)

Application
EP 08014087 A 20080806

Priority
JP 2007207482 A 20070809

Abstract (en)
Provided is an Ni-reduced austenite stainless steel having excellent recyclability with no problem of producibility depression to be caused by the surface property thereof and having good workability, season cracking resistance, corrosion resistance and stress corrosion cracking resistance in point of the material characteristics thereof. The steel comprises C in an amount of more than 0.05 % (by mass) and within a range of from 0.15 to 0.3 % as (C+N), Si in an amount of at most 1 %, Mn in an amount of from 0.5 to 2.5 %, Ni in an amount of from 3 to 6 %, Cr in an amount of from more than 16 to 25 % and Cu in an amount of from 0.8 to 4 %, and has Md30 of the following formula (1) of from -50 to 10 and SFE of the following formula (2) of at least 5: ##### Md30 = 551-462(C+N)-9.2Si-8.1Mn-29(Ni+Cu)-13.7Cr#####(1), ##### SFE = 2.2Ni+6Cu-1.1Cr-13Si-1.2Mn+32#####(2).

IPC 8 full level
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Citation (applicant)
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• JP H06271995 A 19940927 - NIPPON STEEL CORP
• JP 2006219751 A 20060824 - NISSHIN STEEL CO LTD
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US8540933B2; WO2010087766A1; WO2011138503A1; US9039961B2

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