

Title (en)
AUSTENITIC STAINLESS STEEL HAVING IMPROVED STRENGTH

Title (de)
AUSTENITISCHER EDELSTAHL MIT VERBESSERTER FESTIGKEIT

Title (fr)
ACIER INOXYDABLE AUSTÉNITIQUE AYANT UNE RÉSISTANCE AMÉLIORÉE

Publication
EP 3822384 A1 20210519 (EN)

Application
EP 19849274 A 20190808

Priority

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- KR 2019009977 W 20190808

Abstract (en)
An austenitic stainless steel with improved strength is disclosed. The austenitic stainless steel includes, in percent (%) by weight of the entire composition, C: 0.02 to 0.14%, Si: 0.2 to 0.6%, S: less than 0.01%, Mn: 2.0 to 4.5%, Ni: 2.5 to 5.0%, Cr: 19.0 to 22.0%, Cu: 1.0 to 3.0%, Mo: less than 1.0%, N: 0.25 to 0.40%, the remainder of iron (Fe) and other inevitable impurities, and the Solubility of Nitrogen in Liquid (SNL) value represented by the following equation (1) is equal to or greater than the content of N. $SNL = -0.188 - 0.0423 \times C - 0.0517 \times Si + 0.012 \times Mn + 0.0048 \times Ni + 0.0252 \times Cr - 0.00906 \times Cu + 0.00021 \times Mo$ Here, C, Si, Mn, Ni, Cr, Cu, and Mo mean the content (%) by weight of each element.

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