

Title (en)
DUPLEX STAINLESS STEEL

Title (de)
DUPLEXEDELSTAHL

Title (fr)
ACIER INOXYDABLE A DEUX COUCHES

Publication
EP 1645650 A4 20070725 (EN)

Application
EP 04746980 A 20040629

Priority
• JP 2004009511 W 20040629
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Abstract (en)
[origin: EP1645650A1] A duplex stainless steel having excellent pitting resistance and weldability and particularly a duplex stainless steel which does not form minute intermetallic compounds even in a weld heat affected zone is provided. It has a chemical composition comprising C: at most 0.03%, Si: at most 1.0%, Mn: at most 1.5%, P: at most 0.040%, S: at most 0.008%, Cr: 23.0 - 27.0%, Mo: 2.0 - 4.0%, Ni: 5.0 - 9.0%, W: greater than 1.5% up to 5.0%, N : 0.24 - 0.35%, and a remainder of Fe and impurities and satisfying the relationships $PREW = Cr + 3.3 (Mo + 0.5 W) + 16 N$ wherein the number of coarse inclusions having the following definition observed in a cross section is at most 10 per mm². Here, coarse inclusions are defined as inclusions containing at least 20 mass % of Al and having a major diameter of at least 5 micrometers.

IPC 8 full level
C22C 38/00 (2006.01); **C22C 38/44** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP US)
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C22C 38/54 (2013.01 - EP US)

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