

Title (en)
FERRITIC STAINLESS STEEL AND USE THEREOF IN THE MANUFACTURE FOR HIGH TEMPERATURE RESISTANT PRODUCTS

Title (de)
FERRITISCHER ROSTFREIER STAHL UND DESSEN VERWENDUNG ZUM HERSTELLEN VON HOCHTEMPERATURBESTÄNDIGEN PRODUKTEN

Title (fr)
ACIER FERRITIQUE ET UTILISATION DE CE DERNIER DANS LA FABRICATION DE PRODUITS RESISTANT AUX HAUTES TEMPERATURES

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Abstract (en)
[origin: WO03027343A1] Ferritic stainless steel, comprising the following Chemical elements expressed in percentage by weight: - Cr 14.0-20.0 - Al 0.50-1.50 - Zr 0.10-0.50 - Si 0.30-1.50 - Ti 0.10-0.35 - Nb 0.25-0.55- C < 0.035 - N < 0.035 provided that the content of Ti, Nb, C and N satisfy the following relation: %Ti + %Nb/1.94 > 9 (%C + %N) and substantially iron q. s. to 100. This steel may also comprise Yttrium and/or rare earth elements in a percentage by weight comprised in the range 0.10-0.30. The invention also encompasses products manufacturable with the steel of the invention, in particular vehicle exhaust manifold systems. Figure (I) shows a cyclic oxidation test carried out at 1000°C on samples having the composition of an embodiment of the steel according to the invention.

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