

## Title (en)

Use of austenitic stainless steel for applications requiring anti-coking properties

## Title (de)

Verwendung eines rostfreien austenitischen Stahls für Anwendungen, die Anti-Verkokungseigenschaften fordern

## Title (fr)

Utilisation d'aciers inoxydables austénitiques dans des applications nécessitant des propriétés anti-cokage

## Publication

**EP 1223230 A1 20020717 (FR)**

## Application

**EP 01403294 A 20011219**

## Priority

FR 0100469 A 20010115

## Abstract (en)

Stainless steel used for the production or coating of equipment and having improved anti-coking properties comprises (in weight %): C at most 0.15, preferably at most 0.1; Mn 2-10, preferably 5-10; Ni at most 2; Cu at most 4; N 0.1-0.4; Cr 10-20, preferably 15-18; Si at most 1; Mo at most 3; and Ti at most 0.7. The steel may also include (in weight %): S at most 0.01, preferably at most 0.003; P at most 0.05, preferably at most 0.045; B at most 0.005, preferably 0.0005-0.005; Nb at most 1.1, V at most 0.40; Al at most 0.05; and Ca at most 0.002. Independent claims are given for: (a) Equipment or part of equipment fabricated from the steel; (b) Equipment or part of equipment coated with the steel; (c) A method of fabricating part of equipment where the part is made up of whole components; (d) A method of coating equipment or part of equipment by co-spinning, plasma coating, physical vapor deposition, chemical vapor deposition, electrolytic deposition, 'overlay', and plating; and (e) Use of the equipment for a petrochemical process at 350-1100 degrees C, especially catalytic reforming at 450-650 degrees C, and dehydrogenation of isobutane to isobutene at 550-700 degrees C.

## Abstract (fr)

Un acier inoxydable austénitique dont la composition comprend : au plus 0,15 % de C ; de 2 % à 10 % de Mn ; au plus 2 % de Ni ; au plus 4 % de Cu ; de 0,1 à 0,4 % de N ; de 10 à 20 % de Cr ; au plus 1 % de Si ; au plus 3 % de Mo ; et au plus 0,7 % de Ti est utilisé pour la fabrication d'appareillages, par exemple de fours, de réacteurs ou de conduites, ou d'éléments de ces appareillages, ou encore pour le revêtement des parois internes de tels appareillages, lesdits appareillages étant utilisés dans la mise en oeuvre de procédés pétrochimiques qui se déroulent à des températures de 350 °C à 1100 °C et dans lesquels du coke peut se former.

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## Citation (search report)

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