

Development in the Quality and Designability of Stainless Steel Sheets

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Synopsis :

This paper summarizes developments in the quality, designability, and multi-functionability of stainless steel sheets. The corrosion resistance of stainless steel has been improved by controlling alloying elements in two ways. The first is to reduce carbon to an extra-low concentration, and the second is to increase the content of alloying elements. Also described are improvements in the oxidation resistance and quench-hardenability of stainless steel for disk brake use. For designability, two coloring methods of stainless steel have been developed. One is the electrochemical oxidation to form a thin film and the other is the transparent resin coating on the surface of stainless steel. Stainless steel also attained multi-functionability by

# ステンレス鋼板の品質と意匠性の向上\*

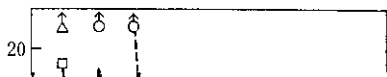
川崎製鉄技報  
21 (1989) 3, 231-238

ての機能以外にも多くの機能が要求されている。たとえば、非磁性

900

\*





550

500

○:R410DB(12.5 Cr-1.5 Mn-0.07(C+N))  
□:SUS 410  
●:SUS 430

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Table 3 Properties of Fancy-Coat-Color

Items of Test	Result	Test Method
Color	4 types	clear, gray, bronze, gold
Film thickness	20 $\mu\text{m}$	
Pencil hardness	H/2B	





イト除去を目的とした熱処理を必要とせず、溶接のままでの使用が可能である。本鋼は一般の非磁性鋼より低 Mn とし、溶接

することにより、焼戻し処理を必要としない焼入処理のみで安定した特性を示すマルテンサイト系ステンレス鋼を開発した。

加えて、本鋼の生産は、従来の鋼板に比べて非常に薄く、（4）高品質材料の開発に関しては、下地のステンレス表面処理が