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Vol. 23(1-nB183(1-T55D148A12 (.)6.3 (l3 (23()0s6 148A1>( )T380 Td ( )

subsequent rapid cooling with a Nb -bearing extra -low C steel (Nb(a

provide an intense >y111>{

fenders.

Development of Bake Hardening High Strength

Cold-Rolled Sheet Steels for Automobile

Exposed Panels

要旨

より過剰の固溶Cが残存すると，鋼板の延性劣化と耐時効性の劣化が避けられない．第2の方法はC=0.005～0.010% の極低炭素 Al

As received　After press-forming　After bake-painting

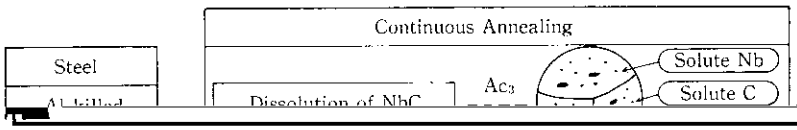
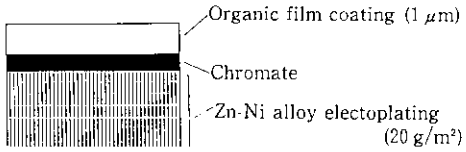
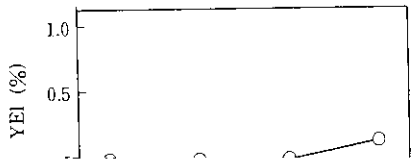

Continuous Annealing
Steel
Dissolution of NbC
Ac3
Solute Nb
Solute C

Table 1 Typical mechanical properties of continuously annealed


Organic film coating (1 μm)
Chromate
Zn-Ni alloy electoplating
(20 g/m²)


1.0
0.5
YEI (%)

付硬化性を有しない板厚0.8 mmの軟鋼板を用いた。両試料を図中

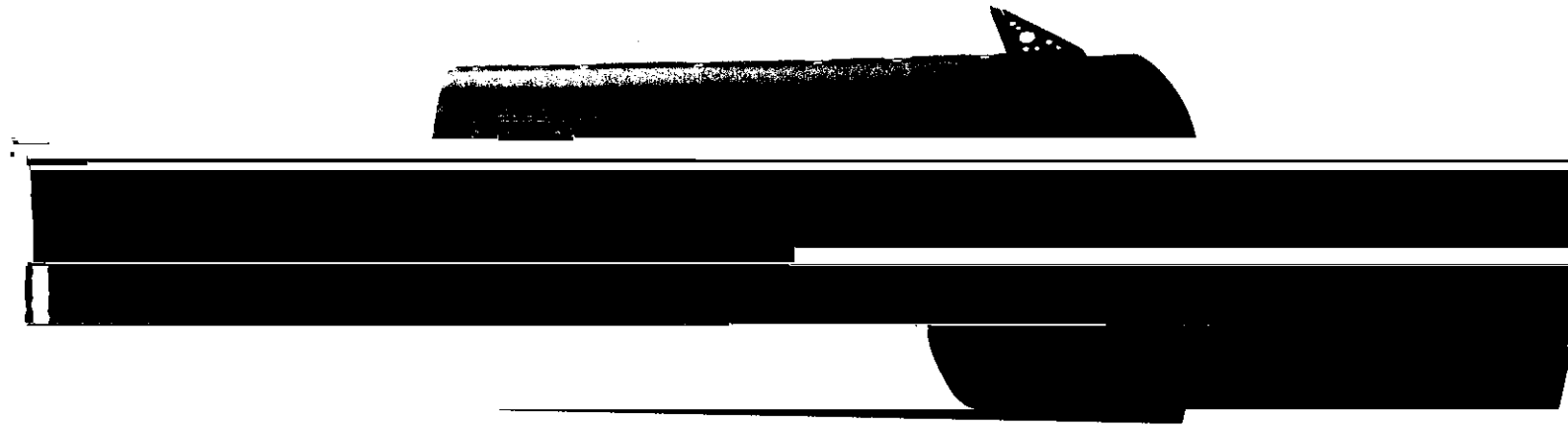


Photo 2 Door outer panel press-formed by organic composite coated sheet steel with extra-deep drawability and bake-hardenability

(3) 同じ素材を用い，同上の塗装が可能な通称溶融亜鉛めっきラ　　であれば室温時効による材料特性の変化がきわめて小さい，

インにより，超深絞り性と焼付硬化性を有する合金化溶融亜鉛　　(5) 焼付塗装の加熱温度を通常の 170°C より約 30°C 低下させ