

Title (en)
Coated metallic substrate.

Title (de)
Beschichtetes metallisches Substrat.

Title (fr)
Substrat métallique revêtu.

Publication
EP 0438971 A1 19910731 (DE)

Application
EP 90810867 A 19901112

Priority
CH 18190 A 19900122

Abstract (en)
[origin: US5230755A] A protective layer for a metal substrate is metallurgically bonded to the substrate and contains (as a percentage by mass) 35 to 50% chromium, up to 10% of which can be replaced by molybdenum, and at least iron, the proportion of iron being at least 25%. The minimum hardness is 800 HVO.1, obtained by a structure having a minimum content of 5% by volume as sigma phase. The sigma phase is obtained by heat-treatment of the coated substrate. The protective layer is particularly resistant to corrosion and also has good resistance to erosion and wear.

Abstract (de)
Eine Schutzschicht für ein metallisches Substrat, die metallurgisch mit dem Substrat verbunden ist, enthält (in Masse-%) 35 bis 50 % Chrom, das bis zu 10 % durch Molybdän ersetzt sein kann, und mindestens Eisen, wobei der Eisenanteil mindestens 25 % betragen muss. Die Mindesthärte beträgt 800 HVO.1, was durch einen Mindestanteil von 5 Vol.-% des Gefüges als Sigma-Phase erreicht wird. Die Sigma-Phase wird durch eine Wärmebehandlung des beschichteten Substrats erhalten. Die Schutzschicht ist besonders widerstandsfähig gegen Korrosion, besitzt jedoch auch gute Erosions- und Verschleissfestigkeit.

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C23C 4/08; C23C 4/18; C23C 26/02; C23C 30/00

IPC 8 full level
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Citation (search report)

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