

Title (en)
HOT STAMPED MOLDING

Title (de)
HEISSPRÄGEFORMEN

Title (fr)
PIÈCE MOULÉE ESTAMPÉE À CHAUD

Publication
EP 3604602 A1 20200205 (EN)

Application
EP 17903939 A 20170331

Priority
JP 2017013760 W 20170331

Abstract (en)
Provided is a hot stamped body which includes a base metal 10, and a plated layer 20 formed on a surface of the base metal 10, wherein the plated layer 20 includes an interface layer 21, an intermediate layer 22, and an oxide layer 23 in order from a base metal 10 side, the interface layer 21 contains an Fe-Al alloy having a microstructure which contains one or more kinds selected from α Fe, $\text{Fe}_{₃}\text{Al}$ and FeAl, a total area fraction of the Fe-Al alloy being 99% or more, the intermediate layer 22 contains an Fe-Al-Zn phase which contains one or more kinds selected from $\text{Fe}(\text{Al}, \text{Zn})_{₂}$, $\text{Fe}_{₂}(\text{Al}, \text{Zn})_{₅}$ and $\text{Fe}(\text{Al}, \text{Zn})_{₃}$, a total area fraction of the Fe-Al-Zn phase being 50% or more, an average composition of the intermediate layer contains, in mass%, Al: 30 to 50% and Zn: 15 to 30%, and an average film thickness of the oxide layer 23 is 3.0 μm or less, and Mg content in the oxide layer 23 is 0.05 to 0.50 g/m².

IPC 8 full level
C23C 2/12 (2006.01); **C21D 1/18** (2006.01); **C21D 9/00** (2006.01); **C22C 18/04** (2006.01); **C22C 21/10** (2006.01); **C22C 38/00** (2006.01); **C22C 38/06** (2006.01); **C22C 38/58** (2006.01); **C23C 2/28** (2006.01); **C23C 2/40** (2006.01)

CPC (source: EP KR US)
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Designated contracting state (EPC)
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Designated extension state (EPC)
BA ME

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