

Title (en)
THERMOFORMED COMPONENT HAVING EXCELLENT COATING ADHESION, AND MANUFACTURING METHOD THEREFOR

Title (de)
THERMOGEFORMTE KOMPONENTE MIT AUSGEZEICHNETER BESCHICHTUNGSHAFTUNG UND VERFAHREN ZU IHRER HERSTELLUNG

Title (fr)
COMPOSANT THERMOFORMÉ AYANT UNE EXCELLENTE ADHÉRENCE DE REVÊTEMENT ET SON PROCÉDÉ DE FABRICATION

Publication
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Application
EP 20893836 A 20200928

Priority
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Abstract (en)
[origin: EP4067530A1] A thermoformed component having excellent coating adhesion. The thermoformed component comprises a substrate layer and an aluminum coating coated on at least one surface of the substrate layer. The average roughness Ra of a surface of the thermoformed component is between 1.0 µm and 3.0 µm, the peak height and the peak-to-valley height Rt are between 8 µm and 30 µm, and the roughness peak count Rpc is greater than or equal to 50. A manufacturing method for the thermoformed component having excellent coating adhesion comprises the following steps: (1) immersing a substrate in an aluminum coating solution to obtain a plate having an aluminum coating on a surface thereof; (2) performing leveling; (3) performing blanking on the plate or cutting the plate to obtain a blank having a required component shape; (4) performing heat treatment; and (5) performing transfer processing and hot stamping, wherein the heated blank is quickly transferred to a mold for cooling and stamping to form a thermoformed component.

IPC 8 full level
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• [A] EP 3354360 A1 20180801 - POSCO [KR]
• [A] CN 106466697 A 20170301 - BAOSHAN IRON & STEEL
• See also references of WO 2021103805A1

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