

Title (en)
COPPER ALLOY SHEET

Title (de)
KUPFERLEGIERUNGSBLECH

Title (fr)
TÔLE EN ALLIAGE DE CUIVRE

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Abstract (en)

[origin: EP2184371A1] The present invention relates to a Cu-Ni-Sn-P-based copper alloy sheet having a specific composition, where (1) the copper alloy sheet is set to have an electrical conductivity of 32% IACS or more, a stress relaxation ratio in the direction parallel to the rolling direction of 15% or less, a 0.2%-proof stress of 500 MPa or more and an elongation of 10% or more; (2) the X-ray diffraction intensity ratio $I(200)/I(220)$ in the sheet surface is set to be a given value or less and at the same time, anisotropy in the stress relaxation resistance characteristic is reduced by fining the grain size; (3) the texture of the copper alloy sheet is set to a texture such that the distribution density of B orientation and the sum of distribution densities of B orientation, S orientation and Cu orientation each is set to fall in a specific range and bendability is thereby enhanced; or (4) the dislocation density measured using the value obtained by dividing the half-value breadth of the X-ray diffraction intensity peak from {200} plane in the copper alloy sheet surface by the peak height is set to a given value or more and press punchability is thereby enhanced. The Cu-Ni-Sn-P-based copper alloy sheet of the present invention is excellent in the properties required for a terminal or connector and further (1) has excellent strength-ductility balance, (2) satisfies the stress relaxation resistance characteristic in the direction orthogonal to the rolling direction, (3) has excellent bendability, or (4) has excellent press punchability.

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