

Title (en)

PROCESS FOR PRODUCING A TWO-DIMENSIONAL EXTENDED METALLIC BODY HAVING A MICROSTRUCTURE WITH MANY FINE OPENINGS, AND TOOL SUITABLE THEREFOR

Publication

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Application

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Priority

DE 3842610 A 19881217

Abstract (en)

[origin: US5055163A] The invention relates to a process for producing a two-dimensionally extending metallic microstructure body having a multitude of minute openings the dimensions and distribution of which may be predetermined. A tool having microstructures on the surface thereof, which microstructures taper outwardly, is pressed into the electrically insulating layer of a molding material comprising an electrically insulating layer and an electrically conducting layer, so that the microstructures project at least through the insulating layer, to form an impression in the molding material. The tool is withdrawn from the molding material to form an impression in the molding material comprised of openings which taper in the direction of the electrically conducting layer. The impression of the molding material is electroplated with a metal to fill the openings with metal to form a two-dimensionally extending metallic microstructure having adjacent metal fillings and minute openings, by filling the openings in the impression to a height at which the distance between adjacent fillings corresponds at the surface of the fillings to the predetermined dimensions of the two-dimensionally extending metallic microstructure. The molding material is removed from the two-dimensionally extending metallic microstructure.

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