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(74) Agent: BECKMANN, Claus; Kraus & Weisert, Thomas-
Wimmer-Ring 15, 80539 München (DE).

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(71) Applicant (for all designated States except US):
ATOTECH DEUTSCHLAND GMBH [DE/DE];
Erasmusstrasse 20, 10553 Berlin (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **HÜLSMANN,**
Thomas [DE/DE]; Teltower Damm 213, 14167 Berlin
(DE). **SPARING, Christian** [DE/DE]; Tietzstrasse 29,
13509 Berlin (DE). **BRUNNER, Heiko** [DE/DE]; Jessner-
strasse 19, 10247 Berlin (DE). **FROESE, Bernd** [DE/DE];
Goethestrasse 43, 12305 Berlin (DE).

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(54) Title: USE OF SILANE COMPOSITIONS FOR THE PRODUCTION OF MULTILAYER LAMINATES

(57) Abstract: A method for the production of multilayer laminates, such as printed circuit boards, comprising a step of treating an electrically conductive material for the subsequent formation of an adhesive bonding between the conductive material and a layer of a dielectric material by bringing the surface of the electrically conductive material into contact with a solution containing a silane composition as adhesive. The silane compositions comprise at least one coupling agent selected from the group consisting of (A-1) a silane coupling agent of the formula $A_{(4-x)}SiB_x$ (wherein A is a hydrolyzable group, x is 1 to 3, and B is as defined in the description); (A-2) a silane coupling agent of the formula $X-[B-[R-Si(A)_3]_z]_x$ (wherein X is a linear or branched hydrocarbon chain containing from 5 to 10 carbon atoms, B is a divalent or trivalent hetero atom, A is a hydrolyzable group and R, z and x are as defined in the description); (A-3) a tetraorgano silane coupling agent of the formula $Si(OR)_4$ (wherein R is hydrogen, alkyl, aryl, aralkyl, allyl or alkenyl); and (A-4) a water soluble silicate coupling agent characterized by the formula $SiO_2 \cdot x M_2O$ (wherein x is 1 to 4, and M is an alkali metal or ammonium ion); and (B) a colloidal silica; with the proviso that (a) said colloidal silica (B) is optional if at least one of compounds (A-3) or (A-4) is present; (b) said colloidal silica (B) is mandatory if none of compounds (A-3) or (A-4) is present; and (c) the silane composition comprises at least one of compounds (A-1) and (A-2). The invention further provides the use of such silane compositions for the production of multilayer circuit boards and the multilayer circuit boards thus obtained.



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