

Title (en)
ELECTRICAL CONTACT PAIR

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Application
EP 90710034 A 19901207

Priority
DE 4005836 A 19900223

Abstract (en)
[origin: EP0443291A2] Plug socket and plug of an electrical contact pair normally consist of a base material, for example copper or a copper alloy, coated with tin or a tin alloy. <??>In particular, in order to reduce the insertion and withdrawal forces of a contact pair, the invention provides that the coating for one plug element has a higher hardness than for the other plug element. For this purpose, the base material of, for example, the plug is given a surface coating which is applied in molten form and which consists of an alloy which contains not only tin and, optionally, lead, together with small amounts of deoxidising and processing additives, but also up to a total of 10 % by weight of at least one of the elements from the group comprising silver, aluminium, silicone, copper, magnesium, iron, nickel, manganese, zinc, zirconium, antimony, rhodium, palladium and platinum. <??>Preferably, the melting point of the coating material should not exceed 320 DEG C.

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Citation (search report)
• [A] DE 1807580 B1 19700827 - FURUKAWA ELECTRIC CO LTD
• [A] EP 0168674 A1 19860122 - PASSINI ANGELO
• [A] WO 8800250 A1 19880114 - OLIN CORP [US]
• [A] PATENT ABSTRACTS OF JAPAN vol. 010, no. 185 (C-357)27. Juni 1986 & JP-A-61 034 142 (TANAKA KIKINZOKU KOGYO) 18. Februar 1986

Cited by
KR100706054B1; EP1157820A1; EP1538709A1; CN103436732A; GB2253097A; GB2253097B; EP1158618A3; US6641930B2; US6716541B2; WO2019224197A1; KR100874396B1; DE102020006059A1; WO2022073575A1

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