

Abstract

Method for producing electric trigger elements for pyrotechnic articles

The invention relates to a method for producing electric trigger elements for pyrotechnic articles such as fuses or igniters, wherein, in a first stage, a) a lacquer is applied by photolithography to an electrically non-conductive substrate, b) a conductive material having a specific resistance of $0.1 \Omega \cdot \text{mm}$ to $5.0 \Omega \cdot \text{mm}$ is applied to the lacquer and substrate by means of a PVD process in a layer thickness of $0.02 \mu\text{m}$ to $8.0 \mu\text{m}$, and c) the lacquer is removed from the substrate, and possibly, in a second stage, d) a photolithographic process is again carried out in which a precisely defined region of the resistor strip is covered with photoresist, e) the entire substrate surface is covered with a layer of a metal having a specific resistance of $0.01 \Omega \cdot \text{mm}$ to $0.1 \Omega \cdot \text{mm}$ in a thickness of $0.1 \mu\text{m}$ to $20 \mu\text{m}$, wherein the application of the metal is configured such that in regions which have a bare substrate from the first photolithographic process, no metal adheres, and f) the lacquer from the second photolithographic process is again removed.