

A b s t r a c t

The present invention relates to a silver-containing aqueous ink formulation for
5 production of electrically conductive structures, wherein the formulation is provided
in the form of a two-component system composed of a vehicle component A at
least comprising an organic solvent, additives and water, and a silver nanoparticle
sol as component B, at least comprising a liquid dispersant, stabilized silver
nanoparticles and an electrostatic dispersion stabilizer, and the formulation
10 composed of components A and B comprises at least

- a) 1 – 50% by weight of organic solvent,
- b) 0.005 – 12% by weight of additives, and
- c) 40 – 70% by weight of water,

and

- 15 d) 15-50% by weight of electrostatically stabilized silver nanoparticles,

where the sum of the total proportions in the ink formulation adds up to 100% by
weight in each case. It further relates to a process for producing such ink
formulations and to a process for producing electrically conductive structures
and/or coatings on a substrate, and to the use of an inventive ink formulation as an
20 ink for inkjet printers and/or for production of electrically conductive structures and
coatings.

FIG 1.