

Abstract

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1. Coating composition for electrical conductors, containing

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A) 1 wt.% to 60 wt.% of one or more reactive nanomers based on an element-oxygen network with elements of the series comprising aluminium, tin, boron, germanium, gallium, lead, the transition metals, the lanthanides and actinides,

B) 0 wt.% to 90 wt.% of one or more conventional binders, and

C) 0 wt.% to 95 wt.% of one or more conventional additives, solvents, pigments and/or fillers,

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wherein the reactive nanomer of component A is based on the element-oxygen network, on the surface of which reactive functions R_1 and optionally non-reactive and/or partially reactive functions R_2 and R_3 are bound by way of the oxygen of the network,

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R_1 being contained in an amount up to 98 wt.%, R_2 and R_3 in an amount from 0 wt.% to 97 wt.% in the nanomer according to the invention, in which R_1 represents radicals of the metal acid esters; NCO; urethane groups, epoxide groups, epoxy, carboxylic acid anhydride; C=C double bond systems; OH; alcohols bound by way of oxygen, esters, ethers; chelating agents; COOH; NH_2 , NHR_4 ; and/or reactive resin components;

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R_2 represents radicals of aromatic compounds, aliphatic compounds, fatty acid derivatives; esters and/or ethers,

R_3 represents resin radicals,

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R_4 represents radicals of acrylate, phenol, melamine, polyurethane, polyester, polyester imide, polysulfide, epoxide, polyamide, polyvinyl formal resins; aromatic compounds, aliphatic compounds; esters; ethers, alcoholates, fats, or chelating agents.