

LOW FIRING TEMPERATURE COPPER COMPOSITION

Abstract

An electroconductive paste comprising first copper particles having a specific surface area of about $0.15\text{--}1.0\text{ m}^2/\text{g}$, second copper particles having a specific surface area of about $0.5\text{--}2.5\text{ m}^2/\text{g}$, glass frit and an organic vehicle. According to another embodiment of the invention, the first copper particles are about 60-80 wt. % of the paste, while the content of the second copper particles is up to about 20 wt. % of the paste. According to another embodiment, the glass frit is lead-free and is about 1-10 wt. % of the paste. Preferably, the glass frit comprises a boron-zinc-barium oxide glass frit. According to another embodiment, the paste further comprises copper oxide. Another embodiment of the invention relates to an electroconductive paste comprising about 60-95 wt. % copper component, a boron-zinc-barium oxide glass frit, and an organic vehicle.

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