



The influence of the structure and Cu_2O eutectic oxides presence on the susceptibility of copper to annealing

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ABSTRACT

ETP copper wire rod manufactured in the industrial lines is in fact a composite made of Cu_2O eutectic oxides in a copper matrix. The formed oxides which are a natural product of the solidification process have significant influence on the way the material work hardening during the drawing process and on the recrystallization temperature and kinetics of the nucleation process. For comparative purposes rods from OF copper manufactured in the Conform[®] line were subjected to the annealing susceptibility tests.

The aim of the conducted research was to compare two grades of copper differing from each other in the presence (ETP) and absence (OF) of Cu_2O oxides and the structure resulting from the method of production and its susceptibility to annealing in the manufacturing process of wire and microwires.

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