

## **Study of the relation between microstructure and properties (mechanical/electrical) of copper wire drawing and annealed**

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### **Abstract**

The aim of this study is to clarify the relation between microstructure and properties (hardness and electrical resistivity) of copper wire drawing by the ENICAB Company and distended for electrical cabling. In this work we studied the evolution of the microstructure and (mechanical/electrical) properties of the wire drawn and annealed at 260°C. The drawing causes structural anisotropy that results in an elongation of grains along the axis of drawing. There was also an increase in electrical resistivity and in hardness following the deformation level increases. After annealing at 260°C of the drawn wire, it was found a gradual return of the mechanical properties and microstructure to a state close to the state of as-received copper.

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