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TEMPERING CHARACTERISTICS OF A Cu-Al-Ag ALLOYS(*)

D.B. Goel and M.N.Saxena,
Dept. of Metallurgical Engg.
University of Roorkee,
Roorkee.

Aluminium bronzes, particularly those containing 10% or more of aluminium, are a very promising system of alloys as future engineering materials. Extensive research is being carried out at present for the development of aluminium bronzes. Various steps for improving the mechanical properties of these alloys have been recently reviewed. One possibility is to utilise the effect of ternary elements on mechanical properties and heat treatability or aluminium bronzes.

In the present investigation, tempering characteristics of a Cu-10.87% Al-0.25% Ag alloy have been studied at 380°C and 520 C. Tempering curve at 460 C shows a two stage hardening while only single stage hardening is observed at 380°C and 520°C. The results have been discussed in terms of precipitation of the L solid solution, formation of pearlite and of metastable phases.

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