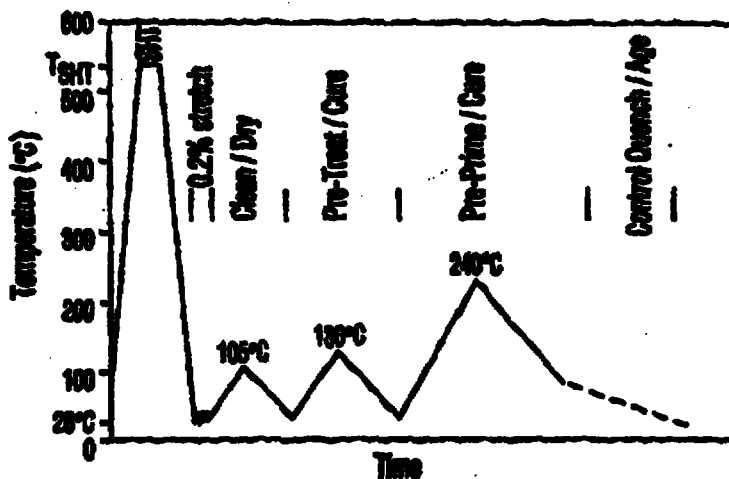




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(54) Title: HEAT TREATMENT PROCESS FOR ALUMINUM ALLOY SHEET



(57) Abstract

A process of producing solution heat treated aluminum alloy sheet material comprises subjecting hot- or cold-rolled aluminum alloy sheet to solution heat treatment followed by quenching and, before substantial age hardening has taken place, subjecting the alloy sheet material to one or more subsequent heat treatments involving heating the material to a peak temperature in the range of 100 to 300 °C (preferably 130-270 °C), holding the material at the peak temperature for a period of time less than about 1 minute, and cooling the alloy from the peak temperature to a temperature of 85 °C or less. The sheet material treated in this way can be used for automotive panels and has a good "paint bake response", i.e. an increase in yield strength from the T4 temper to the T8X temper upon painting and baking of the panels.