

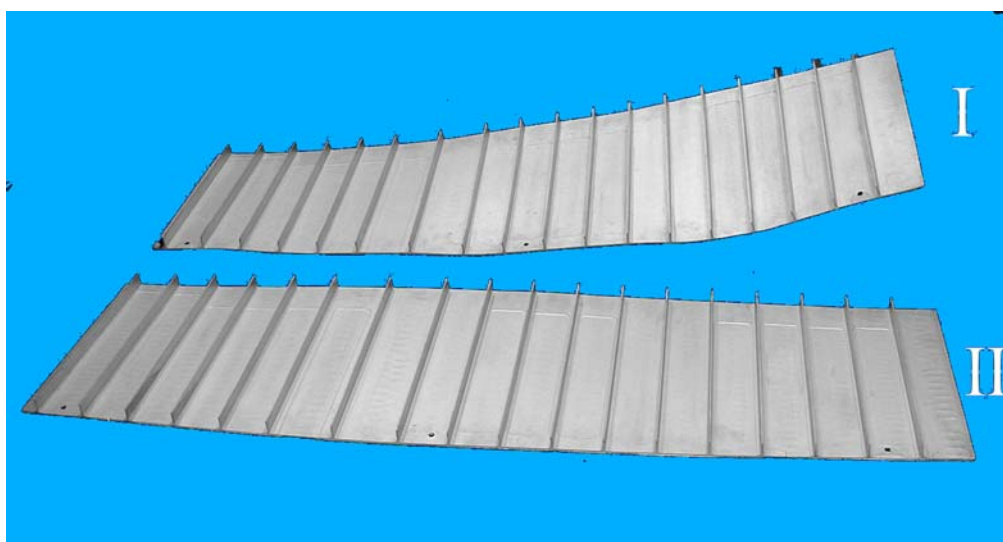


POLYMERIC MEDIUM FOR LOW-DEFORMATION QUENCHING OF ALUMINUM ALLOYS

New quenching medium is a water solution of two polymers in concentration not exceeding 1%. It is designed to be used instead of cold water while quenching thin sheet parts made of aluminum alloys. This being the case, a rather high rate of cooling is manifested required for obtaining a combination of mechanical and corrosion-resistant properties of alloys.

Unlike cold water, the given medium makes it possible to reduce buckling of thin sheet parts by several times in quenching, significantly decrease the level of residual deformation and, as a result, decrease hand straightening and finishing works by 50-60%.

The new technological process was introduced at Novosibirsk and Gorky aircraft plants of the Ministry of Aircraft Industry of the USSR.



Properties of the panel of 1400x400x4 mm after quenching in cold water (1) and in the solution of polymers (2)

Patent of the Russian Federation

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