

## Research on Surface Treatment of Alloy AlCu4Mg Adhesive Bonded with Structural Single-Component Epoxy Adhesives

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Adhesive bonding technology is among the basic methods of joining. Treatment of bonded surface is seen as an essential technology for improving the strength of the bond. Improper treatment of bonded surface reduces the bonding strength and at the same time may increase the cost of manufacturing the bond. The aim of the research was to evaluate the treatment of AlCu4Mg surface bonded by using single-component epoxy, which is commonly used in the transportation industry. This article describes the effect of bonded surface treatment (mechanical treatment of Al<sub>2</sub>O<sub>3</sub> blasting, chemical treatment by degreasing, without modification). Evaluation of individual bonded surface modification was performed according to ČSN EN 1465. From the results of the experiments it can be concluded that all tested adhesives did not confirm the hypothesis H<sub>0</sub> ( $p < 0.05$ ). It follows that there is a difference in the treatment of the bonded surface. The influence of the treatment of bonded surface on adhesive bond strength and elongation of adhesive bond was statistically proved at significance level of 0.05.

**Keywords:** Adhesive bond, chemical treatment, mechanical treatment, testing, without treatment

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