

Setting of Causes of Adhesive Bonds Destruction by Means of Optical Analysis

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A research analyses an influence of an adhesive surface treatment on an adhesive bond strength. Constructional adhesives used for bonding in an automotive industry were used for the research. A significant factor for evaluating the adhesive bond failure is the research of bonded areas by means of an optical analysis. An even layer of the adhesive in the bond is connected with it. The adhesive bonds diagnostics is difficult. It is necessary to control a quality of the production at the production process. A significant factor lowering the resultant strength of the adhesive bond is its creation. One of possibilities of the adhesive bond diagnostics is to use a method of an optical analysis. An uneven layer of the adhesive belongs among main causes of a failure / considerable decrease of the strength of the adhesive bond.

Keywords: Adhesive layer, Diagnostic, Failure area, One-component epoxy, testing

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