

Properties of Adhesives Used for Connecting in Automotive Industry

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An automotive industry belongs among the most important industrial branches in the Czech Republic as well as in the Europe. An adhesive bonding technology is a method of connecting which is used in many industrial branches nowadays. It also plays its irreplaceable part in area of a construction of automobile bodies. The adhesive bonding is the method which is easily implemented among requirements of a serial production. A strength and a reliability of adhesive bonded parts of automobile bodies and other traffic means are key. That is why adhesives used for the adhesive bonding in the automotive industry are characterized by their increased strength and resistance (e.g. adhesives Betamate). The paper describes the cohesive and strength characteristics of these adhesives. It focuses on a tensile strength, a hardness and a shear strength depending on a thickness of used sheets of metal when an increased thickness of the sheet of metal decreases its plastic deformation and so it decreases a liability of the adhesive bond to peeling.

Keywords: Bonding, Epoxy resin, Lap-shear strength

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