UJI KEBOCORAN ARUS LISTRIK DC 12V DAN AC 220V DENGAN VARIASI LAPISAN POWDER COATING PADA BAJA ASTM A36


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ABSTRACT

The use of metal materials in the form of steel ASTM A36 is a metal that is often used in the automotive field. Especially in ASTM A36 steel which is widely used in vehicle bodies and other parts. Abnormal conditions that occur in electrical installations and electronic devices. The frequent occurrence of abnormal conditions in electric current leakage can occur due to several factors, including: imperfect connection, leakage of insulation, damage to components or chipped cables. This research was conducted in order to determine the results of the leakage test of Electric Current Dc 12v and Ac 220v with a variety of powder coating layers on ASTM A36 steel. The test method used is to apply AC and DC electricity to each specimen using an avo meter and ampere pliers to determine the leakage current value. The results of this study have 2 parameters, namely testing before being given a terminal and after being given a terminal, for those testing before being given the terminal does not experience leakage so that the powder coating layer can become an insulator if an electric current leaks. Then the results of research on specimens that have been given terminals all experience leaks starting from layers with a thickness of 2 layers 3 layers to 4 layers. And the results of this study show that the paint will not be able to be an insulator if the paint has scratches or peeling paint on the surface of iron or other conducting objects, so the better the paint and the thicker the paint, the better the ability to be an insulator.

Keywords: Powder coating, leakage of electric current, Steel ASTM A36