

“Tensile Strength Testing Of PET Plastic Composites With Chopped Strand Mat And Epoxy Resin As Matrix”

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ABSTRACT

Environmental problems are problems that deserve attention. These problems include air pollution, soil pollution, and water pollution. The pollution is caused by the amount of waste that is increasing day by day. Of the many types of waste that exist, plastic is the most dominant waste because it is difficult to decompose back into the environment. Recycling is one solution for plastic waste management. Composites consist of fibers and a matrix. The author's purpose of conducting this research is to determine the tensile strength of the epoxy-based PET plastic composite material. The method used is in accordance with the ASTM D638 type 2 standard, while the reference to the quality of the strength of the material uses the BKI standard (Indonesian Classification Bureau). From the results of the tests that have been carried out, the highest average tensile strength occurs in specimens with a size variation of 1cm with an average tensile stress of 53.079 N/mm².

Keywords: *PET plastic, composite, ASTM, tensile strength..*