MECHANICAL PROPERTIES OF COMPOSITE POLYMER POWDER CORN CORN WITH COMPOSITION VARIATIONS
RESIN AND CATALYST

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ABSTRACT

This research was conducted to determine the results of tensile strength and impact toughness of corncob powder. Corn weed is a waste which is very minimal, people use it. In making composite specimens consists of 2 matrix compilers and reinforcemen. The making of specimens was carried out using variations in the form of (%) resin compositions and corncob powder, where the composition included 39.2: 60.8, 49.1: 50.9 and 49.4: 50.5 volume and weight reactions, followed by tensile testing and impact testing. the impact test of the largest value in the comparison to 3 is (49.4: 50,5) the results are 0.2634 J / mm2, and the smallest results are in the ratio of 2 (50:50) which is 0.1934 J / mm2. these results show that if the fibers that hold a lot more than the resin can hold more strokes that occur against the specimen, while the toughness values obtained are the highest at the ratio (39.2: 60.8) of 15, 93367 J / mm2, and the lowest result lies in the 2nd ratio (49.1: 50,9) which is 12.75467 J / mm2. In the tensile test the maximum ratio of comparison to 1 (39.3: 60,6) is: 97,724 (N / mm2), for comparison to 2 (49,1: 50,8) of: 98,431 (N / mm2), and for comparison to 3 (50.3: 49,6), namely: 45,425 (N / mm2), while the strain is generally a comparison to 1 (39,3: 60,6), namely: 0,256 (mm / mm), in comparison to 2 (49,1: 50,8) reached: 0,307 (mm / mm), and in comparison to 3 (50,3: 49,6) of: 0,369 (mm / mm)

Keywords: Corn Bump, Weight Fraction (%), Strain stress