

**VARIATION OF ADDITION PINEAPPLE LEAF FIBER AND COCONUT FIBER AS BASIC MATERIALS FOR MATRIX POLYESTER COMPOSITE WHICH WILL BE APPLIED TO MOTORCYCLE FRONT FENDERS**

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**ABSTRAK**

Composite is a new type of material engineered from two materials or chah combined with different materials. The combination of these two materials is intended to obtain the results of the combination which are expected to mutually improve the deficiencies of the two materials. In this study combining natural coco fiber fiber and pineapple leaf fiber, the volume fraction of the fiber used was 30% with a ratio of variations of coco fiber and pineapple fiber. Pineapple leaf fibers are KN-1 (20% 10%), KN-2 (15% 15%), KN-3 (10% -20%). The results of the impact test show that the KN-1 mixed variation (10%:20%) has the lowest average strength value of 0.0098 J/mm<sup>2</sup>, from the KN-2 mixed variation (15% 15%) which has an average strength value of 0.0128 J/mm<sup>2</sup>, and the KN-3 mixture (20%:10%) had the highest average strength value of 0.0141 J/mm<sup>2</sup>. The results of the bending test show that the KN-1 mixed variation (10%:20%) has the lowest average strength value of 96.2 MPa from the KN-2 mixed variation (15%-15%) which has a strength value of 106 .6 MPa and a variation of the KN-3 mixture (20%:10%) has the highest strength value of 122.2 MPa. Based on testing of the composite reinforced with coco fiber and pineapple leaf fibers, the composite is still suitable for use in the manufacture of motorcycle front fenders

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