

*ANALYSIS OF DIFFERENCES IN THICKNESS AND ADHESION PAINT
COATINGS WITH VARIATIONS OF METHODS
PAINTING ON ALUMINUM ALLOY WHEELS
Commision Guide, Ahmad Rofi'i, S.Pd., M.P*

Muh. Anang Irawan

*Automotive Engineering Study Program
Engineering Department*

ABSTRACT

This research aims to analyze the differences in the quality of thickness and adhesion of various painting methods on aluminum media, the painting method used is the spraypainting method, the painting method using canned paint, and the powder coating. The tests carried out in this research were the thickness and adhesiveness of the paint which would be tested using an elcometer and a cross cut test. This study uses an elcometer Ultrasonic Thickness Gauge type TKG100 which aims to measure the thickness of the paint to determine the value of each specimen, for the cross cut test is used to test the adhesiveness of paint using ISO 2409:2007, DIN 927-3 and ASTM D33002 and ASTM. D3359 from this test can know the peeling product presentation. The results of the lowest paint thickness test were 0.24mm using the canned paint method, while the highest hardness value was 0.42mm using the spray. The results of the lowest paint adhesion test were 3B for the canned paint method, while the highest bond value was 5B for the powder coating. It can be concluded that the highest paint thickness value is spray and the lowest paint thickness value is canned paint type. Meanwhile, the best adhesion value is powder coating and the lowest adhesive value value is canned paint type.

Keywords: *Spray paint, elcometer, powder coating paint, cross cut test*