

*Testing Thickness and Adhesion Test Values of Powder Coating Layers with Varying Number of Layers and Coating Methods on ASTM A709 Steel Materials*

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**ABSTRACT**

*Powder Coating is a process of coating metal or a workpiece that coats metal, by sprinkling coating powder on the heated object so that the paint powder melts and sticks to the object to be coated, this study aims to determine the thickness value and adhesion test of the powder coating layer with variations in the number of layers and powder coating coating methods. The research method used in this study is an analytical experimental research to determine the influence of variations in the number of layers and powder coating methods on the Powder Coating painting finishing process applied to ASTM A709 steel The result of this study is that the thickness value test shows that the more layers are given, the greater the thickness value. The highest thickness values are 0116 mm and 016 mm Whilst the best Adhesion Test value is in a two-layer coating with a percentage of peeled area of 0% For the variety of coating methods, the Spray method produces a higher thickness value than the fluidized bed method As for the Adhesion test test, the fluidized bed coating method produces better adhesion than the Spray method*

*Keywords: Powder Paint, Thickness Gauge, Pretreatment, fluidized bed.*