

**The Effect Of *Tempering* Time On The Thickness And Strength Of *Powder Coating* On ST37 Steel Material**

by

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**ABSTRACT**

Powder Coating is a metal Coating process or workpiece that coats metal by sprinkling Coating Powder on a heated object so that the paint Powder melts and sticks to the object to be coated, this study aims to determine the effect of the specimen Tempering time on the Powder Coating Finishing process. on the thickness and strength or adhesion of the Powder Coating layer. The research method used in this study is an experimental research analysis to determine the effect of the long Tempering time on the Finishing process of painting Powder Coating applied to Mild Steel ST 37. The results of this study are that the Powder Coating layer which is tempered for 10 minutes has defects. in the form of Orange Peel and Pin Hole, while the greatest thickness of the Powder Coating layer is obtained at 10 minutes Tempering with an average thickness of 0.31 mm and the best strength or adhesion of the Powder Coating layer is obtained at Tempering for 30 minutes with a value of 0% or nothing chipped.

***Keywords:*** *Powder Coating, Powder Paint, Thickness Gauge, Adhesion Test.*