

***The Effect of Comparison Between Thinner and Surface Paint and Variations
in Drying Time and Paint Thickness on the Corrosion Rate of Low Carbon
Steel St 37 Media***

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ABSTRACT

When using steel, the problem that often occurs is corrosion. Corrosion is damage or destruction of material due to reaction. One type of metal used is ST37 steel. One way to inhibit the rate of corrosion is by painting. This research aims to determine the comparison between thinner and paint as well as thickness and drying time on the rate of corrosion on ST37 clothing. The research method used is experimental, by taking the research object as the corrosion rate value of the ST 37 low carbon steel material using the HCL solution test medium. The results obtained from the research and observation process are that the smallest variation in the corrosion rate value is found in the thinner and paint variations 1:1 layer 2 with a drying time of 40 minutes on the Nippe paint brand with a weight loss of 13,89 grams with a corrosion rate value of 0.0211 mmpy with a percentage of 13,89% of 0.1600 mmpy in variations of thinner and paint 1:1 layer 1 drying 60 minutes with a weight loss of 10,52 grams. Thus, the thicker the paint can slow down the rate of corrosion.

Keyword: Oven, Painting, HCL.