VARIASI WAKTU DAN TEGANGAN PROSES *ELEKTROPLATING* NIKEL – CROMIUM PADA BAJA KARBON RENDAH TERHADAP LAJU KOROSI BAHAN PELAPIS

(*VARIATIONS IN TIME AND VOTAGE PROCESS ELECTROPLATING NICKEL – CROMIUM IN LOW CARBON STEEL AT THE RATE OF COFFINGS*)

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ABSTRACT

A steel that is often seen and used in the industrial world primarily in the automotive aspect, a *low carbon steel* has relatively high levels of strength and very easily molded. But with relatively high power it does not required the possibility of avoiding *corrosion*. The *Corrosion,* it can only be prevented by one process of *electroplating*. *Electroplating* is a type of coating using direct electric currents and certain electrolyte compounds. The nickel coated elements for the first upholstery, then re-coated with chromium. The research was done in Bengkel Rezeki Motor. The variation's treatment process time is 5, 10, 15 minute with the tension 30V, 40V, 50V with soaking using corrosive media of HCl 20% in 20 days. The impact of variations in time and voltage released by *electroplating* to the rate of *corrosion* the highest average thickness of 33,90 µm is found in time variation 15 minutes with 50V variations. For specimens at most cortical rate both with 15 minutes of time variations with 50V tension variations 7,64% percentage has a heavy loss on the rate of *corrosion*. The conclusion from a research is increasingly thickening the results of dilation using variations in time and the highest voltage, and the power to corrode is growing smaller.

Keyword: Carbon steel, Corrosion, Electroplating.