

COMPARATIVE INHIBITIVE EFFECT OF HYDROXYETHYLCELLULOSE ON MILD STEEL AND ALUMINIUM CORROSION IN 0.5M HCL SOLUTION

Innocent O. Arukalam

Department of Polymer and Textile
Engineering, Federal University of
Technology, Owerri - Imo State,
NIGERIA

compuu4sure@yahoo.com

Ifeanyi K. Nleme

Department of Polymer and Textile
Engineering, Federal University of
Technology, Owerri - Imo State,
NIGERIA

ifykingso@yahoo.com

Ambrose E. Anyanwu

Department of Polymer and Textile
Engineering, Federal University of
Technology, Owerri - Imo State,
NIGERIA

emeka.ambrose@yahoo.com

ABSTRACT

The inhibitive effect of HEC on Mild steel and Aluminium corrosion in 0.5M HCl solution under atmospheric exposure was studied using weight loss method. From the results obtained, it was observed that the corrosion rate was higher in Aluminium than in Mild steel. Inhibition efficiency and surface coverage were however, found to be higher in Mild steel than in Aluminium. In addition, corrosion current was determined. From our results, the corrosion current was higher in Mild steel than in Aluminium.

Keywords: Aluminium; Hydroxyethylcellulose; corrosion inhibition; corrosion current; Inhibition Efficiency.