

Development of new adhesive compositions based on filled polymers for metal-based products

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Abstract

The adhesive compositions based on polymers filled with inorganic and organic compounds were characterized by the degree of swelling, yield strength of the bond under shear in the cured state. The effect of composition on the rate of uniform corrosion of the metal was evaluated on model surfaces exposed to corrosion. Roughing and chromium-containing steel and aluminum based alloys are used as structural metals. Adhesion of the coating compositions depends both on the metal and the type of filler. Uniform corrosion rate of reduced metal surface in the presence of previously developed fluorinated quaternary ammonium salts practically does not change in many cases.