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(54) Title: COATING COMPOSITIONS WITH ANTICORROSION PROPERTIES

(57) Abstract: Anticorrosive coating compositions comprise a binding polymer and an amorphous aluminum phosphate corrosion inhibiting pigment dispersed therein. The coating composition comprises 1 to 25 percent by weight aluminum phosphate. The binding polymer can include solvent-borne polymers, water-borne polymers, solventless polymers, and combinations thereof. The aluminum phosphate is made by combining an aluminum source with a phosphorous source to form an amorphous aluminum phosphate solid condensate. The coating composition is specially engineered to provide a controlled delivery of phosphate anions of 50 to 500 ppm, and has a total solubles content of less than 1500 ppm. The amorphous aluminum phosphate is preferably free of alkali metals and alkaline earth metals. The amorphous aluminum phosphate has an oil absorption of less than 50, and a surface area of less than about 20 m²/g. The coating composition has a water adsorption potential of up to 25% by weight water.



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