

Characteristics of carboxyl functional polyester powder coatings masked by various acids

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When powder coatings are prepared as a bit thick film, the surface defects such as pinholes are increased with increasing the thickness of films. Additives such as benzoin and waxes in powder coating formulations are commonly used to control or mask the effects of degassing. Controlling both slower reactivity and longer open time in the formation of film brings about the reduction of pinhole formation due to out-gassing. Masking effects by various acids reduces the pinhole formation by controlling slower reacting time as a result of out-gassing. In the present study, the effect of pinhole reduction was examined about carboxyl functional polyester powder coatings cured with hydroxyl functional β -hydroxyalkylamides.