RHEOLOGICAL BEHAVIOR OF THERMOSET POWDER COATINGS

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The behavior of different thermoset powder coating systems, epoxy/polyester (50/50, 40/60 and 30/70) the impact of the filler, the curing temperature and the frequency upon gel-time have been examined based upon the rheological measurements and compared with PE/TGIC systems. Two disparate methodologies have been employed to determine gel-time. The behavior of dissimilar systems bearing different formulations has been compared by means of the non-isothermal DSC test. The effects of resin percentage and the formulation on physical and mechanical properties of the coating have been investigated.