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(54) Title: THERMAL PROTECTIVE COMPOSITIONS

(57) Abstract

A thin-film intumescent composition (17) for protecting a substrate (15) against fire and thermal extremes includes a polymer binder, a solvent, a carbonific, a spumific, a catalyst, and at least some additives chosen from a source of carbon, finely divided elemental boron, a metal stearate adduct with alumina, and a conjugated fatty acid, preferably a conjugated triglyceride. The compositions provide chars (23, 25) having greatly increased efficiency, greater thickness, better physical characteristics including cell structure and physical toughness, and greater resistance to oxidation by fires and by chemicals present in fires.

