

ANALYSES OF FIRE PROPERTIES AND OF THE QUALITATIVE COMPOSITION OF THE GASEOUS PHASE OBTAINED FROM EPOXY NANOCOMPOSITE

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SUMMARY: The work presents a comparative analysis of the applied flame retardants and their action in case of epoxy resins. Its objective was to determine the way that antipyrenes influence fire properties of epoxy materials. The empirical part included an examination of the heat and smoke rate from epoxy materials, which were both unmodified and modified by Exolit RP 6580 and Nanomer I. 28 E at different exposures to heat. Thermogravimetric, spectrophotometric analyses in IR and scanning electron microscopy were used to explain the mechanism of activity of the tested flame retardants in studied materials.