Chemistry » Inorganic Chemistry

Screening Smoke Performance of Commercially Available Powders. 2. Visible Screening by Titanium Dioxide

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Abstract: The visible and infrared smoke screening performance of a variety of commercially available **titanium dioxide** pigments have been evaluated in the ERDEC 14 cu m smoke chamber. Four performance parameters-extinction coefficient, dissemination yield, particle density and deposition velocity have been identified and measured to predict screening performance in the field. Weight, volume and cost constrained figures of merit based on these performance parameters have been measured and tabulated for the visible, mid IR and for IR bands as well as 1.06 micrometers wavelength in order to rate their relative screening capabilities. **Titanium dioxide**, Electrostatic aerosol dispersion, Aerosol deposition, Visible screening, Aerosol coagulation

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