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INNOVATIVE METHOD FOR TESTING ELECTROSTATIC PROPERTIES OF CONVEYOR BELTS IN ORDER TO PREVENT EXPLOSION HAZARDS

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Abstract

Conveyor belts are used from a long period of time, in most industry branches, as well as there where a potentially explosive atmosphere could occur. When in operation, light conveyor belts may lead to important hazards and risks, among which electrostatic charging is identified, dangerous in regard of ignition of flammable substances. Discharging the static electricity field accumulated during operating of light conveyor belts show hazards of igniting explosive atmospheres generated by mixtures of air with gas, vapor, mists and/or combustible dusts/powders. The paperwork refers to the test method and test stand used to determine the electrostatic field generated by light conveyor belts in operation, for a subsequent assessment from a point of view of igniting the combustible/flammable substances and of igniting the explosive atmospheres as consequence of potential discharge.

Key words: conveyor belts, electrostatic discharges, explosive atmosphere, explosion protection, static electricity

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