

Industrial flooring and ESD. Evolution from antistatic floors to ESD floors and their application in industry

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Abstract

Antistatic floors exist since years to prevent electrostatic discharge, with gas or dust explosion hazards being the main reasons for their use. ESD floors are also required to prevent electrostatic discharge but the events are not on the same scale. Therefore the requirements are different from one application to the other. There are several European standards which describe test method for flooring and the client may have his own requirements also. With EN standards, a European approach may be possible, but there are still local peculiarities such as electrical safety requirements. In addition, liquid applied floors are not only epoxy floors, but also polyurethane, cement based or specialities like the patented UCRETE technology. Traditional epoxy floors were the basis of discussion for determining the electrodes used for measurement, which in some cases has produced some artificial solutions. A safer approach has been taken in the case of an important floor in the aeronautic industry where AS requirement was associated with the need for an ESD environment. This is presented as a case study.

Keywords: electrostatic discharge, antistatic floor, flooring, ESD floors