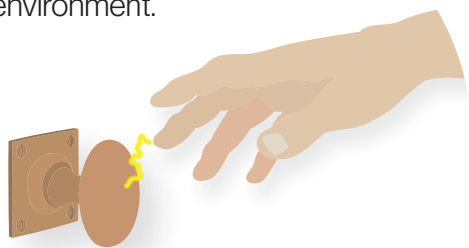
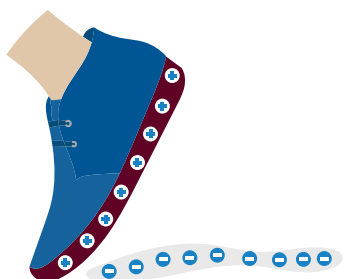


**In everyday life, the accumulation and discharge of static electricity on a person can be a nuisance; we have all experienced static ‘shocks’ when approaching door handles. In an industrial situation, where a flammable atmosphere may be present, it could be potentially lethal. The human body is capable of accumulating enough static electricity that when discharged under normal operating conditions can ignite a significant number of solvents, fuels and combustible dusts that exist in general industry applications and processes today.**

A person can accumulate a significant amount of charge by walking on an insulating surface, touching a charged object, brushing surfaces while wearing non-conductive clothing or by momentarily touching grounded objects in the presence of charges in the environment.



If a person is isolated from earth, either by wearing shoes with insulating soles or by being on a floor surface with little or no conductivity, then static electricity can accumulate on their body or clothing as they move around.



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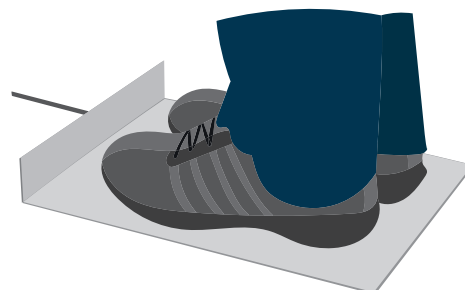
04

## The Dangers of Static Charge Accumulation on People

Through their own movement people can generate large amounts of static charge if they are not grounded. Over 30,000 volts can be carried by people who are completely unaware that they themselves are the potential source for an electrostatic spark discharge. This discharge could ignite a flammable atmosphere when people come into close contact with a grounded object, or one at a lower potential.



Static charge accumulation on workers can be mitigated by issuing them with footwear that is designed in accordance with safety standards or recommended practices that incorporate static dissipative properties in the structure of the footwear. Newson Gale's Sole-Mate footwear tester ensures that shoes conform to the guidance outlined in IEC EN 20345 and NFPA 77.



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1/1

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