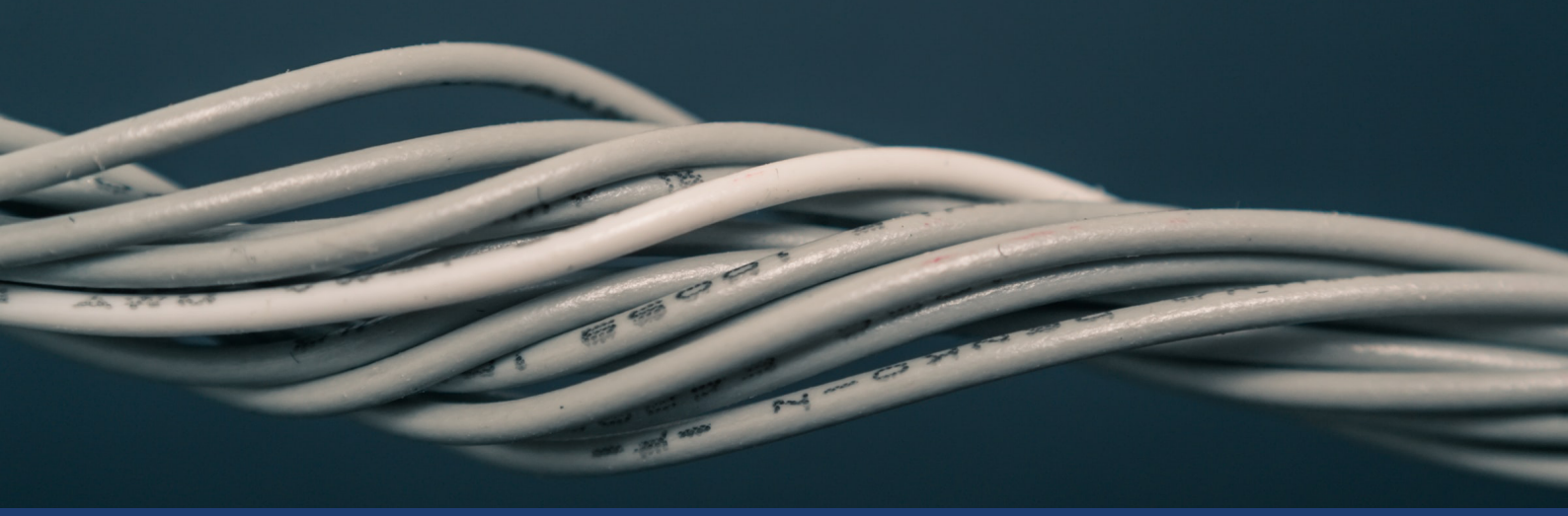
Health and Safety Update



Electrical Safety and PAT Update

New equipment Class II (FE)

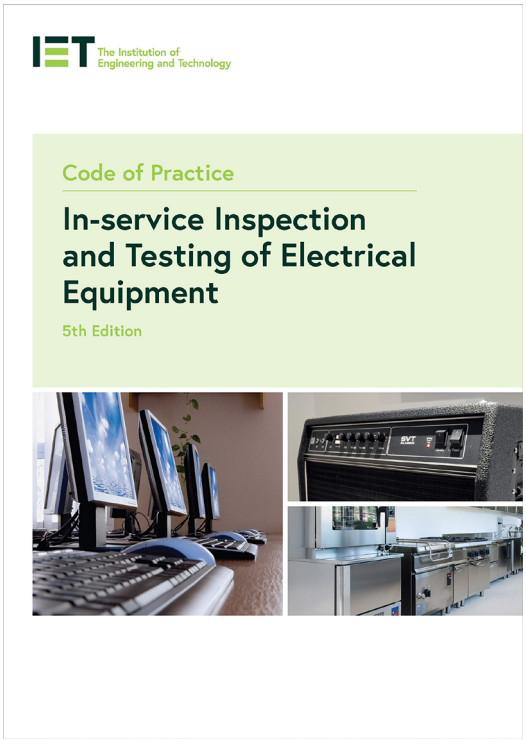
The IET 5th edition In-service Inspection and Testing of Electrical Equipment code of practice has introduced a new equipment classification: Class II (Functional Earth). This new classification is to distinguish items that are considered for electrical safety to fulfil the requirements for Class II, but for functional reasons require a connection to earth.

This means the item will be double insulated but will have a connection to earth on the mains side. In the past such items may have been referred to as Class I Hybrid.

The most common examples of these are switch mode power supplies which are used in a variety of applications especially in IT equipment such as laptop power supplies/ chargers.

The symbol for Class II (FE) is shown to the right. Some older equipment with this type of supply arrangement may be marked as ITE. (Information Technology Equipment)

When testing and inspecting such equipment, for electrical safety, they should be treated as any other Class II item.



Hot and Bothered

Prep Rooms

During the recent spell of hot weather, we have been receiving queries from concerned technicians about high temperatures in their chemical stores. The main problem is usually poor building design, which was addressed in a previous **article**[1] which includes issues such as the chemical store having no outside wall or the 'make up' air being drawn from a warm prep-room. The longer, hotter, and more frequent spells of hot weather that will surely come as a result of climate change suggest the situation will only get worse.

It is worth pointing out that there is no maximum temperature in law for a chemical store – surprising to many people. The legislation covering the storage of chemicals, **DSEAR**[2] and **COSHH**[3], addresses the outcomes and leaves the details of how they are achieved up to the organisation.

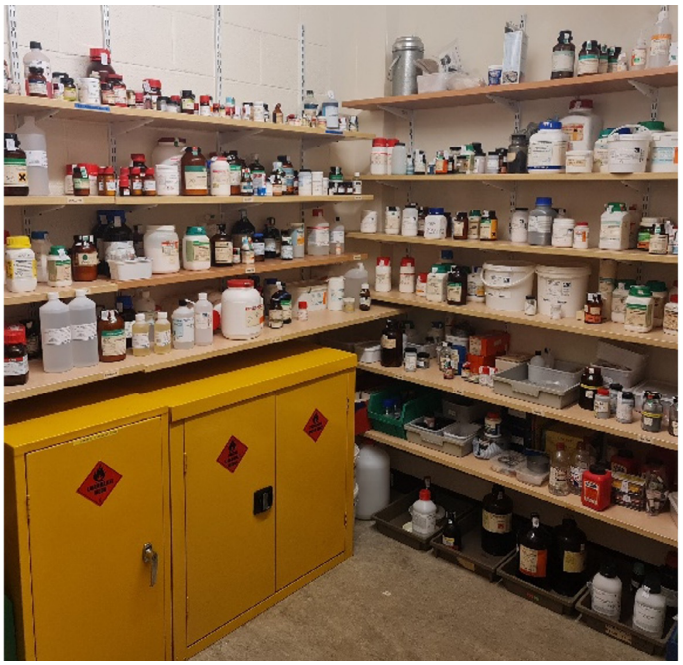
But high chemical store temperatures are not desirable: it can lead to two main problems from a health and safety perspective:

1. **Increased evaporation of flammable substances could give rise to an explosive atmosphere.**

2. **Increased evaporation of hazardous substances could give rise to an atmosphere that is harmful to breathe.**

In both these cases, the issue is excessive vapour in the atmosphere. This can be addressed in two fundamental ways: by reducing the evaporation (reducing the temperature for instance) or by increasing the ventilation.

Reducing the temperature is preferable as it will lead to a longer lifespan of chemicals and prevent 'ballooning' of some bottles amongst other things but, realistically, increasing ventilation is usually a significantly easier (and cheaper) way of achieving the same end, at least as far as air quality is concerned.



Doors

On a not entirely unrelated matter, having doors open is generally an excellent way of improving overall ventilation, and this is even more important nowadays as a mitigation against Covid-19.

However, we have had a few queries recently from people who have been told that they should (or at least could) have prep room doors open to improve the ventilation (and provide some cooling). There are some problems with this. First of all, it is quite likely that prep room doors could be fire doors – in which case they cannot be kept open. Even if not, there is a significant problem with security in having the prep room door kept open. Even though the more hazardous materials and equipment are kept securely, there is still plenty of opportunity for a casual 'visitor' to obtain something that could result in a nasty accident.

SSERC strongly recommends that prep room doors should be kept closed.