

## Emergency lighting battery types

There are four different types of emergency lighting batteries. These are:

- Sealed Lead Acid (SLA)
- Nickel Cadmium (NiCd)
- Nickel Metal Hydride (NiMH)
- Lithium-ion Phosphate (Life PO4)

### Sealed Lead Acid

These are typically larger batteries used in 'high-drain' applications such as emergency twin-spot luminaires or multiple lamp battery systems.



### Nickel Cadmium

Whilst becoming less popular, these are still a very common battery coming mainly in D-cell or C-cell size. They are typically used in older technology compact fluorescent and T8 linear fluorescent luminaires.



### Nickel Metal Hydride

The smaller size of the NiMH battery (typically AA-cell size) makes it ideal for limited space applications such as T5 linear fluorescent as well as many LED luminaires.



### Lithium-ion Phosphate

A relatively new technology, LED luminaires in current production are now starting to use this technology. They have a life over double that of other technologies (typically 8 years), cope well in harsher environments (i.e. freezer lighting) and are heavy duty.



### When specifying a battery ensure you give the following information:

- Technology. Which of the above battery types is it?
- Voltage. This will be on the battery but if you are struggling to read it, you can also be reasonably certain that each cell will be 1.2V so a 3-cell battery would be 3.6V.
- Amp-hour rating. This is the capacity of the battery which is relative to how long it will last.
- Configuration. Is it in a stick configuration or are the cells side by side?
- Connections/terminals. There are many different types such as fly-leads or spade terminals.
- Any other details. Some batteries may be in an intumescent sleeve, some may be mounted on a plate, or in a triangular bundle.
- As always, an image of the battery and the label is excellent if it can be given.