

## Lithium-ion Battery Fires – are you safe?

A recent study conducted by the business insurer QBE found that UK fire services faced a 46% increase in lithium-ion battery fires in 2023. Lithium-ion batteries are found in a wide range of everyday products from Electric Vehicles, laptops, vaping devices, and mobile phones. As more rechargeable electric devices are used and stored on construction sites, sites must be equipped with the correct fire extinguishers and fire safety measures to handle these unique fires. Lithium-ion battery fires result from thermal runaway and catastrophic battery failure, caused by factors like overcharging, overheating, physical damage, or internal malfunctions. These fires pose significant risks to both property and life. Therefore, construction organisations must implement robust fire safety measures to address this escalating threat.

### How can you keep your equipment safe?

A useful acronym developed by Take Charge of Battery Safety can help you ensure your equipment remains safe.

### C-H-A-R-G-E

**C – Choose certified products** – When purchasing lithium-ion battery-powered devices, look for products that are listed or certified by a nationally recognised testing laboratory to ensure they meet important safety requirements. Cheap untested batteries can pose a serious risk!

### H – Handle with care

- Follow manufacturer instructions!
- Only use the charging equipment that was supplied with the product.
- Store batteries away from extreme temperatures, direct sunlight, exits and anything flammable.
- Charge larger devices (such as eBikes) away from any exit route and outside if possible.
- Do not charge larger devices overnight.



### A – Always stay alert for warning signs:

- Check battery-powered devices often for damage or abuse such as swelling or punctures.
- Listen for unusual hissing or popping sounds.
- Watch out for excessive heat or a strange odour.
- If you notice any of the above, stop using the lithium-ion battery-powered device immediately.
- White or grey wispy smoke indicates there is an immediate danger of fire.

**R – Recycle batteries and devices properly** – responsibly dispose of old or damaged batteries by taking them to the nearest battery recycling centre. Never discard batteries, chargers, or battery-powered devices in regular bins.

**G – Get out quickly if there's a fire** – the warning signs to look and listen for and get out if you see or hear them. Follow the site/building fire escape plan to your nearest muster point.

**E – Educate others about battery safety** – now that you know what actions to take, spread the word with your colleagues and intervene if you see anything that looks wrong to protect your colleagues and loved ones.

In addition to the above, ensuring that any portable devices hold a valid Portable Appliance Test (PAT) and that the user inspects them prior to each use will help to ensure that portable devices remain fit for use and free from any defects that may cause a fire.