

5 KEY FEATURES OF A SAFE BATTERY STORAGE CONTAINER

As battery technology advances, the dangers associated with battery storage increase. Lithium batteries are now the leading rechargeable battery type used across a range of products and industries, requiring many businesses to store these volatile items on their premises.

Are lithium batteries dangerous? Lithium-ion batteries have become the norm in consumer electrical devices as they are lighter and more efficient than their nickel-based counterparts. Like any battery, if charged, discharged, used and stored correctly, they present little threat. However, this technology is classed as hazardous, with risk of fire and explosion if exposed to extreme conditions, damaged, aged or stored in an unstable environment.

Due to this, they are placed under tight restrictions when it comes to transportation. Planes can only travel with a limited amount of lithium on board due to pressure and temperature changes during flight. The instability of road travel also leaves them susceptible to damage and cause a fire.

Therefore, the most common method of transport for a large quantity of lithium batteries is shipping. With shipping containers providing a stable and contained environment for this technology during transportation, surely they provide an ideal base for lithium battery storage? We certainly think so!

Here are the 5 key features of a safe battery storage container, and why a shipping container based [battery storage room](#) is the ideal solution to not only protect you and your investment, but also prolong the working life of your batteries.

1. Temperature Control

When exposed to high temperatures, lithium batteries not only discharge, but are also more likely to explode. A recommended temperature range is between 10°C and 25°C.

Whilst the steel construction of a shipping container can regulate internal temperature, during a heat wave, the temperature inside may begin to climb. Converted container based battery storage rooms can be fitted with HVAC systems and additional ventilation to ensure that the internal temperature remains optimal for safe battery storage.

2. Fire Proof and Fire Containing

Lithium battery storage carries with it a risk of fire. Should the worst happen, the batteries should be stored within a unit that will contain the flames and be fitted with an alarm to alert of a fire.

In addition, the construction of the battery storage container should be fire proof, to avoid an external fire from igniting the stored batteries and creating an even greater danger.

The robust steel case of a shipping container's construction will contain the flames and prevent fire from penetrating the walls and doors and additional smoke detection can be added during production.

3. Remote Storage

The safest way to store batteries is away from buildings. Should any incident occur, they can release harmful toxins into the air. With a well contained mobile container based battery storage room, you have the flexibility to position the battery store a safe distance from your main building and reposition as and when necessary.

4. Avoid Direct Sunlight

Sunlight generates heat, heat is a dangerous ingredient when it comes to battery storage. It's important your lithium batteries are stored in a dark environment and not exposed to direct sunlight.

A windowless shipping container blocks out any sunlight and keeps the batteries in a cool, dark and importantly dry environment...

5. Moisture and Humidity Control

Any damage to the case of a lithium battery can cause spontaneous fires due to lithium reacting with the moisture in the air. To prevent this risk, it's important to store lithium batteries in a dry and air tight environment.

Our converted battery storage containers include moisture and humidity control, in the form of [moisture traps and anti-condensation treatments](#).

Turn to the Experts in Safe Battery Storage

Now you know the 5 key requirements of a safe battery storage container. With temperature regulation, moisture control and fire containment, a shipping container forms the ideal solution for safe battery storage. Our experienced conversions team have carried out a number of [battery storage projects](#) and are standing by to help you with yours. [Contact us](#) today.