Flooded Cell (Wet Cell) Batteries
Packaging & Shipping Instructions

Flooded cells contain electrolyte fluids, creating power with submerged plates. They are used for backup power, utility and grid storage.

Correctly Packaged Flooded Cell Batteries

1. Prepare Shipment

- Add wood slats as “bumpers” to keep cells from moving on pallet
- Cardboard insulation below and multiple (3+) layers on top
- Banded together with high-strength banding then banded to pallet
- Proper labeling

2. Package Pallet

- Insulate bottom of pallet with cardboard or plywood below and on top of batteries. Secure to pallet with vinyl banding over topmost insulating layer.

3. Label & Ship

- Shrink wrap to pallet. Using layers of shrink wrap down to bottom edges of the pallet will help avoid shifting during shipment.
- It is not possible to have too much shrink wrap or banding to secure the material to the pallets.
- A general rule would be once you think you have it wrapped, add six more revolutions of wrap.
- If you can easily poke fingers through the shrink wrap, you need to add more.

Incorrectly Packaged Flooded Cell Batteries

- Insufficient cardboard (less than three layers) on top or bottom of cells
- Must be insulated with cardboard OR a non-conductive material, such as plywood
- Exposed terminals + use of steel banding
- Insufficient banding OR not banded to the pallet
- Not protected from sliding off pallet with wooden “bumpers”
- Insufficient amount of shrink wrap OR not shrink wrapped to pallet
- Incorrect labeling
These instructions must be followed exactly.
These instructions are for flooded cell lead acid batteries only. If you are unsure of the type of batteries that you have, please contact us for assistance.

**Getting Started**
Under the Universal Waste Law, you must contact Battery Solutions before sending a shipment of universal waste batteries to us so we may assign a recycling authorization tracking number to the shipment.

When calling please inform us:
- Of your specific pick-up hours.
- If you do or do not have a loading dock or lift truck to load the batteries for shipment.
- If you do not have an asphalt or concrete loading area.

If batteries are damaged or leaking, or if you are unsure if batteries are damaged, please call the Battery Solutions logistics department for instructions.

**Preparing Batteries for Shipment**
Any vents or spark arresters on the battery must be capped or plugged to prevent leaking during shipping or storage.
Damaged batteries that are not visibly leaking should be placed in strong poly bags and properly closed with an adjustable plastic tie to secure.

**Pallet Limitations**
- Only use heavy-duty pallets with 2” x 4” supports.
- Pallet Size should not exceed 40” x 48”.
- Pallet weight should not exceed 2800 lbs.
- Pallet heights should not exceed 48” tall.
- The whole pallet, with layers, should never be taller than it is wide.

**Packaging Pallet to Ship**
- The top surface of the pallet should have 2” x 2” wooden strips nailed to the pallet surrounding the base of the batteries to prevent the batteries or drums from sliding off the pallet during transit.
- All types of cardboard and shrink wrap materials are acceptable.
  - Do not use styrofoam packaging material, i.e. peanuts, foam padding, flow-foam products, etc. in the battery boxes or in the pallets.
- All batteries must be packaged on a pallet in individual boxes or with an ample amount of cardboard to separate the layers of batteries and protect all the terminals. Thicker honeycomb cardboard is ideal for separating layers.
- When packaging the batteries on the pallet, if the batteries are not in boxes, place one layer of batteries upright, then place a thick honeycomb layer of cardboard on top of that layer before you put another layer of batteries on the pallet.
- Place honeycomb cardboard over the top layer to ensure that foreign materials cannot cause a short across the batteries.
- All batteries should be carefully banded to a strong wooden pallet with 5/8” heavy duty vinyl banding ensuring the banding does NOT come in contact with battery terminals.
- If banding is unavailable, use shrink wrap in heavy layers to the pallet ensuring the shrink wrap is all the way down around the pallet itself. Use enough shrink wrap to keep the batteries from shifting during transportation.
- When shipping wet cell batteries with acid or alkali electrolyte, use a corrosive Class 8 placard on opposite sides of each pallet. Battery Solutions can supply you with these labels if needed.

**Shipping**
Have the driver of the trucking company sign the bill of lading that was provided to you. Keep a signed copy for your records.