

Stacking and Storage Practices for Construction

When you are moving and storing materials at a construction site, there are a number of things that can go wrong, resulting in injuries like splinters, cuts, scrapes, or crushed fingers, hands and feet – and even death.

Potential Hazards

Workers can be injured by:

- Falling objects
- Improperly stacked materials
- Equipment and materials that may be sharp, abrasive or heavy

When manually moving materials, be aware of potential injuries such as:

- Strains and sprains
- Fractures and bruises
- Cuts and bruises

Moving, Handling and Storing Material

You should seek help moving a load when you cannot: properly grasp, lift or control it; see around or over it; or safely handle it.

Best Practices

- Ensure that NO part of the body is under a raised load
- Blocking materials should be large and strong to support the load
- Use handles or holders and tag lines to reduce finger pinching or smashing
- Use personal protective equipment (PPE):
 - For loads with sharp/rough edges, wear gloves/hand and forearm protection and eye and face protection
 - When loads are heavy or bulky, wear steel-toed safety shoes or boots
- Do not stack or store ANY materials closer than 18 inches (45 centimeters) from sprinkler heads

When moving materials with mechanical equipment:

- Avoid overloading equipment
- Note the equipment-rated capacity on each piece of equipment
- Pay attention to ground conditions
- Consider other employees near the path of travel

When using rough-terrain lifts, telehandlers and powered industrial trucks, the load must be:

- Centered on the forks
- As close to the mast as possible
- At or below capacity; never overload a lift truck
- At the lowest position for traveling
- Correctly piled, if stacked

Stacking Materials

Material	Best Practices
Lumber	<ul style="list-style-type: none"> • Remove nails before stacking • Stack and level on solidly supported bracing • Should be stable and self-supporting
Bricks	<ul style="list-style-type: none"> • Stacks should be no more than 7 feet (2 meters) high • Taper back 2 inches (5 centimeters) for every foot (30 centimeters) of height above 4 feet (1.2 meters) • Taper masonry blocks back 1/2 block for each tier above the 6-foot (1.8-meter) level
Bags and bundles	<ul style="list-style-type: none"> • Stack in interlocking rows to remain secure • Stack bags by stepping back the layers and cross-keying the bags at least every 10 layers
Boxed materials	<ul style="list-style-type: none"> • Band or hold in place using cross-ties or shrink wrap
Drums and barrels	<ul style="list-style-type: none"> • Stack symmetrically • If stored on sides, block bottom tiers • When stacked on end, put planks, sheets of plywood or pallets between each tier to make a firm, flat stacking surface • When stacking materials two or more tiers high, chock the bottom tier on each side to prevent shifting in either direction
Hazardous materials	<ul style="list-style-type: none"> • Some cannot be stored together; check with your supervisor or general contractor if you are unsure
Combustible materials	<ul style="list-style-type: none"> • Store away from areas in which workers are welding or doing hot work
“Unstackable” materials	<ul style="list-style-type: none"> • Unstackable materials (due to size, shape or fragility) may be safely stored in cargo containers or bins
Cylindrical materials	<ul style="list-style-type: none"> • Example: structural steel, bar stock, poles • Stack and block
Pipes and bars	<ul style="list-style-type: none"> • Do not store in racks which face walkways