

Storage and Handling

Wallboard and Other Products

SHEETROCK® Brand Gypsum Panels, IMPERIAL® Brand Gypsum Base, DUROCK® Brand Cement Board and FIBEROCK® Brand Gypsum Panels are all heavy panels whose handling by machine or by hand poses the risk of serious injury. This document outlines some major concerns with forklift safety, stacking board, storage conditions and lifting. This is not intended to be a comprehensive review, but instead provides some general safety information, and refers to other sources for further information and assistance.

Forklift Safety

Board products and ceiling tile will first be moved by a forklift or similar device. It is absolutely essential that the equipment be rated capable of handling the loads. The forks should always be long enough to extend completely through the width of the load. Forks should also be extended far enough apart to support the load so that it will not break or fall. Gypsum panels are brittle compared to other building products, such as lumber. If not properly supported, individual panels or a whole lift can break.

SHEETROCK Brand Gypsum Panels and IMPERIAL Brand Gypsum Base: Fork spacing between supports should be one-half the length of the panels or base being handled so that a maximum of 4' extends beyond the supports on either end.

FIBEROCK Brand Gypsum Panels and DUROCK Brand Cement Board: Fork spacing should be similar to the above except that a maximum of only 3' should extend beyond the supports on either end.

Fork carriage spread in the range of 46" to 84" is suitable for handling most common lengths of board and panels.

Sometimes gypsum board manufacturers offer to band lifts of board at each end. This will aid in preventing deflection of the board when it is picked up with a forklift, but it is not a substitute for proper fork spacing. Banding will not prevent board from breaking if the forks are not spaced far enough apart.

Other key items of forklift safety include:

- Always follow the forklift manufacturer's operating and maintenance instructions, especially concerning the load limits of the forklift
- Always wear the safety belt when operating a forklift
- Never move the forklift with the load elevated more than a few inches above the floor or ground surface
- Never stand below or near a raised load
- Observe all traffic rules in the loading or warehouse area
- Never disable equipment back-up alarms or other safety devices
- In heavy traffic areas, use a spotter to regulate forklift, pedestrian and other traffic

For more information on forklift safety, contact OSHA CFR at (800) 321-OSHA (6742) or National Safety Council at (800) 621-7619.

Stacking Board

Gypsum Association literature states unequivocally that board should be stacked flat because stacking boards vertically against a wall poses a safety hazard. See "Handling Gypsum Board," Gypsum Association publication GA-801-93:

"Stacks of gypsum board are very heavy and can become unstable if proper stacking and handling procedures are not followed. Workers must always be extremely careful when stacking or working in an area where gypsum board is stacked. A 4' wide by 12' long by one-half-inch thick gypsum board can weigh over 80 pounds; this means a stack of only 25 boards weighs over a ton."

"Gypsum board should always be stored flat. Placing it vertically on edge for an extended period may damage the edges and can also cause the board to warp. Additionally, board stacked on edge can easily become unstable and accidentally fall over. Stacking gypsum board flat will lower the potential for a safety hazard."

However, there are some situations where stacking the board flat creates different safety hazards. For example, in residential construction where rooms are small and hallways narrow, contractors prefer that the board be stacked vertically against the wall so that tradespeople have room to move around. In these circumstances, board stacked flat could pose a tripping hazard.

Also in residential construction, floor load limits often are not sufficiently high to be able to accommodate a concentrated point load of gypsum panels, cement board or gypsum fiber panels in the center of the floor; instead, the safer procedure in this situation is to distribute the board in vertical stacks around the sides of the room. Sometimes, when different sizes or widths of board are required (for example, 5/8" for the ceiling and 1/2" for the walls) vertical stacking makes it easier for the wallboard hangers to find the board they need.

For all these reasons, in many if not most parts of the country, contractors prefer that the board be stacked vertically. When this is done, be sure to leave at least 4" to 6" of space between the bottom of the first board in the stack and the wall. Leaving less than 4" creates a risk that the stack could be pulled over; leaving more than 6" applies too much weight laterally against the wall.

Storage Conditions

Protecting building materials from water and weather elements is important. Exposure to the weather not only damages building materials by moisture intrusion, but it also causes other harm not immediately obvious. Examples include:

- Moisture can affect the bond of the face paper to the gypsum core causing problems during application and finishing.
- Ultraviolet (UV) exposure from sunlight will ruin the ability of plaster base panels (blue board) to act as a substrate for some veneer plasters.

If building materials are left unprotected from moisture before, during or after construction, conditions can become favorable for mold and mildew growth. It is necessary to eliminate all sources of moisture immediately.

Although board products are very heavy, high winds across the flat surfaces of the board can provide "lift" just as with an airplane wing, and thus wind can send heavy pieces of gypsum wallboard flying through the air causing damage and serious injuries.

For more information, contact the Gypsum Association at 202-289-5440 and request Handling Gypsum Board (GA801-93).

Lifting

Building material panels and packages are very heavy, awkward loads posing the risk of severe back injury. Always observe proper lifting techniques: keep the load close to your body and use your legs, not your arms, to lift. Use mechanical assistance such as pallet lifters or hand dollies wherever possible. Confine manual lifting and carrying to the shortest distance possible.

For more information, contact the National Safety Council at 800-621-7619.

Additional Information

For complete USG product and safety information, please refer to the following resources:

- *The Gypsum Construction Handbook*
- www.usg.com
- 800 USG.4YOU

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Safety First!

Follow good safety and industrial hygiene practices during handling and installing of all products and systems. Take necessary precautions and wear the appropriate personal protective equipment as needed. Read material safety data sheets and related literature on products before specification and/or installation.

