

# Installation Recommendations

## GENERAL

- Install gypsum panels in accordance with methods described in ASTM C840 and GA-216. Note that cutting and scoring should be from the back side of the panels.
- Examine and inspect framing materials to which gypsum panels are to be applied. Remedy all defects prior to installation of the gypsum board.
- Apply gypsum panels first to ceilings at right angles to framing members, then to walls. Use boards of maximum practical length so that the minimum number of end joints occur. Bring panel edges into contact with each other but do not force into place.
- Install batt or blanket ceiling insulation BEFORE the gypsum panels on ceilings when installing a vapor retarder behind the gypsum panels. Install the insulation IMMEDIATELY after the gypsum panels when using loose fill insulation. Avoid installation practices that might allow condensation to form behind panels.
- Locate gypsum panel joints at openings so that no joint will occur within 12 in. (305 mm) of the edges of the opening unless installing control joints at these locations. Stagger vertical end joints. Joints on opposite sides of a partition should not occur on the same stud.
- Hold gypsum panels in firm contact with the framing member while driving fasteners. Fastening should proceed from center portion of the panels toward the edges and ends. Set fasteners with heads slightly below the surface of the panels. Take care to avoid breaking the fiberglass mat of the gypsum panel. Remove improperly driven nails or screws.
- Provide minimum 1/4 in. (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.
- Maintain a room temperature of not less than 40°F (4°C) during application of gypsum panels.

## SAFETY

Installers should wear long pants and long-sleeved, loose-fitting shirt. Use protective gloves and special eye protection (goggles or safety glasses with side shield). Wear a dust mask when sanding; you may need additional breathing protection in extremely dusty conditions. Do not use a power saw to cut this product.

**Caution:** Because this product contains fiberglass, dust and glass fibers may be released during normal handling, which could result in eye or skin irritation or cause difficulty in breathing. Wherever possible, avoid contact with the skin and eyes and avoid breathing dust or fibers that may be released during installation. Consult the SDS for this product, available at: [purplechoice.info](http://purplechoice.info) before use.

## FASTENING

**EXP® Sheathing®** – Fasteners (nail or screw heads or the crown of staples) should bear tightly against the face of the sheathing panel but should not cut into the face. Staples should be driven with the crown parallel to the framing. Fasteners should be no less than 3/8 in. (9.5 mm) from the edges and ends of the panel. When shear values are not required, fasteners should be spaced not more than 8 in. (203 mm) o.c. along the vertical ends or edges and intermediate supports.



### NAILS

- Galvanized, 11 gauge
- 7/16 in. (11.1 mm) head, 1-1/2 in. (38.1 mm) long for 1/2 in. (12.7 mm) sheathing
- 1-3/4 in. (44.5 mm) long for 5/8 in. (15.9 mm) sheathing.



### STAPLES

- Galvanized 16 gauge, 7/16 in. (11.1 mm) crown, 1-1/2 in. (38.1 mm) long for 1/2 in. (12.7 mm) sheathing
- 1-5/8 in. (41.3 mm) long for 5/8 in. (15.9 mm) sheathing.



### SCREWS

- ASTM C1002 or ASTM C954
- 1-1/4 in. (31.8 mm) long Type W for wood framing
- 1 in. (25.4 mm) long Type S-12 for metal framing

# EXP® Gypsum Panels

## Installation Recommendations *(continued)*



### EXP® SHEATHING

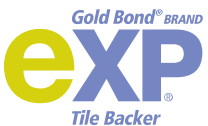
- EXP® Sheathing may be attached parallel to or perpendicular to wood or metal framing. For horizontal applications, install EXP Sheathing with end joints staggered.
- Use appropriate panel orientation for specific fire assemblies and shear wall applications, as required by the design.
- Install fire-rated assemblies in accordance with the details found in the UL Fire Resistance Directory or the Gypsum Association's GA-600, *Fire-Resistance Design Manual*.
- Install EXP Sheathing with vertical edges butting over the center of framing members. Fit sheathing snugly around all openings.
- Install panels with a 3/8 in. (9.5 mm) gap where non-load-bearing construction abuts structural elements.
- To prevent wicking, install panels with a 1/4 in. (6.4 mm) gap where they abut masonry or similar materials that might retain moisture.



### EXP® SHAFTLINER

Install EXP® Shaftliner consistent with methods described in specific application details for National Gypsum Cavity Shaftwall Systems or

Area Separation Fire Wall Systems in *NGC Construction Guide*, or with other fire-resistance-rated designs.



### EXP® TILE BACKER

- Do not embed EXP® Tile Backer into mortar bed in showers. Install with gray side facing away from the framing, apply tile/finishes to the gray side.
- Score/cut from the gray side using a standard utility knife. Cut outs are made easily with a utility knife or saw. Panel joints must be tight. Fill gaps and inside corners with flexible sealant.
- Drive fasteners flush with the panel surface; do not countersink.
- Hold tile backer boards in firm contact with the framing member while driving fasteners. Fastening should proceed from center portion of the panels toward the edges and ends. Take care to avoid breaking the facer of the tile backer board. Remove improperly driven nails or screws.
- Provide minimum 1/4 in. (6.4 mm) clearance between boards and adjacent concrete or masonry to minimize wicking of moisture.
- Embed alkali-resistant fiberglass tape with the tile setting material at tile backer board joints prior to tile installation.
- Maintain a room temperature of not less than 40°F (4°C) during application of tile backer boards.
- Install fire-rated assemblies in accordance with the details found in the *UL Fire Resistance Directory* or the Gypsum Association, GA-600, *Fire Resistance Design Manual*.



### EXP® INTERIOR EXTREME®

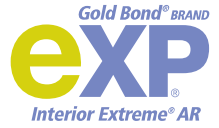
- Install fire-rated assemblies in accordance with the details found in the *UL Fire Resistance Directory* or the Gypsum Association's GA-600, *Fire-Resistance Design Manual*.
- Drive fasteners just below the surface, avoiding damage to the core and/or glass mat facer.
- Avoid installing water-sensitive materials on EXP® Interior Extreme® Panels in pre-rock applications until the building is enclosed.

### EXP® INTERIOR EXTREME® AR

- Listed impact ratings apply to walls constructed with EXP® Interior Extreme® AR applied with long edges parallel to and centered over minimum 20-gauge framing members spaced a maximum of 16 in. (406 mm) o.c.
- Install fire-rated assemblies in accordance with the details found in the *UL Fire Resistance*

*Directory* or the Gypsum Association's GA-600, *Fire-Resistance Design Manual*.

- Drive fasteners just below the surface, avoiding damage to the core and/or glass mat facer.
- Avoid installing water-sensitive materials on EXP Interior Extreme AR Panels in pre-rock applications until the building is enclosed.



### EXP® INTERIOR EXTREME® IR

- When handling EXP® Interior Extreme® IR, cutting and scoring should be from the back side of the panels.
- Listed impact ratings apply to walls constructed with EXP Interior Extreme IR applied with long edges parallel to and centered over minimum 20-gauge framing members spaced a maximum of 16 in. (406 mm) o.c.

■ Install fire-rated assemblies in accordance with the details found in the *UL Fire Resistance Directory* or the Gypsum Association's GA-600, *Fire-Resistance Design Manual*.

- Drive fasteners just below the surface, avoiding damage to the core and/or glass mat facer.
- Avoid installing water-sensitive materials on EXP Interior Extreme IR Panels in pre-rock applications until the building is enclosed.



### FIRE-RESISTANCE RATINGS

Fire-resistance ratings represent the results of tests on assemblies made up of specific materials in a specific configuration. When you are selecting construction designs to meet certain fire-resistance requirements, use caution to ensure that each component of the assembly

is specified in the test. Take further precautions to ensure that assembly procedures are in accordance with those of the tested assembly. For additional fire-safety information, please refer to [nationalgypsum.com](http://nationalgypsum.com). For copies of specific tests, call 1-800-NATIONAL®.



### SUSTAINABLE DESIGN

Recycled content data and manufacturing location data are available for National Gypsum Company products based upon current National Gypsum distribution plan and manufacturing

location capabilities at the National Gypsum Company Green Product Score website: [gps.nationalgypsum.com/Welcome.aspx](http://gps.nationalgypsum.com/Welcome.aspx)



### GREENGUARD CERTIFICATION

Select EXP® products have achieved GREENGUARD and GREENGUARD Gold Certification. GREENGUARD Certified products

are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For details, visit: [ul.com/gg](http://ul.com/gg).

