


USG BORAL 
TERMS &
CONDITIONS

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DELIVERY AND STORAGE OF MATERIALS

A. All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Never Open the cartons and keep the boards in standing position. This will boost the possibility of warpage of the tile.

B. Storage:

1. Panels: Storage time of materials at the job site should be as short as possible, and environmental conditions should be as near as possible to those specified for occupancy (see no. Environmental Conditions below). Excess humidity during storage can cause expansion of material and possible warp, sag, or poor fit after installation. Chemical changes in the mat and/or coatings can be aggravated by excess humidity and cause discoloration during storage, even in unopened cartons. Cartons should be removed from pallets and stringers to prevent distortion of material. Long-term (6- 12 months) storage under uncontrolled environmental conditions should be avoided.

2. Suspension System: Store in manner that will prevent warping, scratches, or damage of any kind.

C. Handling: Handle in such manner to ensure against racking, distortion, or physical damage of any kind.

D. Damaged or deteriorated materials should be removed from the premises. Immediately before installation, to stabilize tile and panels, store them at a location where temperature and humidity conditions duplicate those ambient during installation and anticipated for occupancy. In this case, refer to USGBORAL Complaint Handling document and contact with the appropriate USGBORAL personnel should be made within three days of receiving the material (signed delivery documentation)

ENVIRONMENTAL CONDITIONS

A. Installation of acoustical panels shall not begin until building is enclosed, permanent heating and cooling equipment is in operation, and residual moisture from plaster, concrete, or terrazzo work has dissipated.

B. Do not use ceiling panels in extreme or continuous high humidity, or areas exposed directly to weather or water. Ceiling panels are sized and designed for use within the standard occupancy range of temperature and humidity, 65-85 °F (18-29 °C), no more than 70% RH

(relative humidity). Humidity can greatly affect product dimensional stability and sag resistance. Sag can become noticeable during periods of high humidity lasting only a few hours. CLIMAPLUS ceilings if used with DONN® Brand Suspension Systems, can withstand temperatures from 60-104 °F (32-40 °C) and relative humidity up to 95%-100% RH. See USGBORAL for specific Warranty information.

C. Allow time for dimensional changes in ceiling panels stored at temperature/humidity conditions well outside of those recommended for service. With increases in temperature/humidity, these products expand (up to 1/64 in./ft. (4.3 mm/m) at 85 °F (29 °C)/90% RH) and may not fit into a fixed grid. Conversely, with decreases, these products will be undersize, but expand to normal when standard ambient conditions return.

D. For some pattern edge details, if perimeter panels must be cut smaller, the cut edge must be field-rabbited, or the wall angle must be lowered by (1/4") (3/8") (Reveal Depth).

E. Formaldehyde & VOC Classification, as tested per ASTM D5116 and according to standards established by the Collaborative for High-Performance Schools (CHPS), the California Office of Environmental Health Hazard Assessment (OEHHA), and the USGBC LEED for Schools.

Products are classified as zero- or low-emitting for formaldehyde and VOC emissions as defined:

a. "Zero-Emitting"

Materials producing concentration levels below the test-chamber background level specified by the "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers," including 2004 addendum. Section 3.8.4.3 states, "Background concentrations in the empty chamber ventilated at 1.0 air changes per hour shall not exceed 2 µg m⁻³ (1.6 ppb) for any individual VOC, including formaldehyde" and all VOCs with chronic inhalation Reference Exposure Levels adopted by California EPA COEHHA for Proposition 65 chemicals.

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b. "Low-Emitting"

1. Materials passing CHPS requirements as established in the "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers," including 2004 addendum. In addition, these products produce formaldehyde concentration levels below 9 µg m⁻³ & contribute no more than one-half of the chronic inhalation Reference Exposure Level adopted by California EPA COEHHA for all other VOCs identified by Proposition 65.
2. Must be tested by independent lab per these standards along with product submittals.
 - a. Documentation of laboratory test must indicate products and item number if test results differ for other facility manufacturing location for supplied products.

QUALITY ASSURANCE

- A. Single Source Responsibility:** To obtain combined warranty for the DONN® Brand suspension system and the acoustical panel, color match or ceiling panel and suspension system compatibility, all acoustical panel and suspension system components shall be produced and supplied by one manufacturer. Materials supplied by more than one manufacturer are not acceptable.
- B. Subcontractor qualifications:** Installer shall have successful experience in the installation of suspended ceiling systems on projects with requirements similar to requirements specified.
- C. Requirements of regulatory agencies:** Codes and regulations of authorities having jurisdiction.
- D. Source quality control:**
 1. Test reports: Manufacturer will provide test certification for minimum requirements as tested in accordance with applicable industry standards and/or to meet performance standards specified by various agencies.

2. Changes from system: System performance following any substitution of materials or change in assembly design must be certified by the manufacturer.

PROJECT CONDITIONS

A. Existing conditions: (include specific alteration work requirements for project).

B. Environmental requirements for interior installation: Building shall be enclosed with windows and exterior doors in place and glazed, and roof watertight before installation of ceiling system and related ceiling components. Climatic Condition Range for panels used on this project are as follows:

1. ClimaPlus Ceilings: 60-90°F (16-29°C) with a max 95% RH.

CLIMAPLUS ceilings used with DONN® Brand Suspension Systems can be used when building is not enclosed and in higher temperature, relative-humidity range.

C. Coordination with other work:

1. General: Coordinate with other work supported by or penetrating through the ceiling, including mechanical and electrical work and partition systems.
2. Mechanical work: Ductwork above ceiling shall be completed and permanent heating and cooling systems operating to climate conditions prior to installation of ceiling components.
3. Electrical work: Installation of conduit above ceiling shall be complete before installation of ceiling components.
4. Fire protection work: Fire protection lines and/or equipment occurring above ceiling shall be completed and tested before ceiling components are installed.

D. Protection:

1. Personnel: Follow good safety and industrial hygiene practices during handling and installing of all products and systems, with personnel to take necessary precautions and wear appropriate personal protective equipment as needed. Read material safety data sheets and related literature for important information on products before installation. Contractor to be solely responsible for all personal safety issues during and subsequent to installation; architect, specifier, owner, and manufacturer will rely on contractor's performance in such regard.
2. Protect completed work above ceiling system from damage during installation of ceiling components.

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INSPECTION

- A.** Examine areas to receive ceiling panels for conditions that will adversely affect installation. Provide written report of discrepancies.
- B.** Do not start work until unsatisfactory conditions are corrected.
- C.** Work to be concealed: Verify work above ceiling is completed and installed in manner that will not affect layout and installation of ceiling panels.
- D.** Beginning of installation shall signify acceptance of conditions in areas to receive ceiling panels.

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PREPARATION

Field dimensions must be verified prior to installation.

INSTALLATION

- A.** Standard reference: Install ceiling panels and suspension system, including necessary hangers, grillage, splines, and other supporting hardware, in accordance with ASTM C636, 2006 IBC (2007 CBC), CISCA Ceiling Systems Handbook, (UL Design) and any applicable code requirement.
- B.** Manufacturer's reference: Install ceiling panels in exposed grid systems, supported on all edges, in accordance with manufacturer's warranty.
- C.** Drawing reference: Install ceiling panels in accordance with approved shop drawings.
- D.** Hanger Wires:
 - 1. Spacing: Space hanger wires on main tees not more than 48 inches o.c. a maximum of 48" o.c., attaching hangers directly to the structure above, or as required to support loads.
 - 2. Limitations: Do not support wires from mechanical and/or electrical equipment, piping or other equipment occurring above ceiling.
- E.** Ceiling Perimeter: Install edge moldings (2" minimum) and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical panels.
 - 1. Tee ends shall be tied together with DONN® Brand Stabilizer Bars or other approved means to prevent the tees from spreading apart.
 - 2. Mechanically attach the terminal ends of the ceiling suspension members to the perimeter molding of two adjoining walls using pop-rivets or other approved means.
 - 3. Maintain a 3/4" clearance between the opposite ends of the suspension members and the wall. The unattached ends of the suspension members shall rest upon and be free to slide perpendicularly to the perimeter molding.
- F.** Alternate Perimeter Attachment: When approved by local code officials install 7/8" edge molding with ACM7 Seismic Clip - Install per USGBORAL literature AC3235.
- G.** Accessories: Install accessories as applicable to meet project requirements.
- H.** Install edge moldings and trim of type indicated at perimeter of acoustical ceiling area and where necessary to conceal edges of acoustical tiles.
- I.** Install suspension system runners so they are square and securely interlocked with one another. Remove and replace dented, bent, or kinked members.
- J.** Install acoustical tiles in coordination with suspension system.
 - 1. Fit adjoining tile to form flush, tight joints. Scribe and cut tile for accurate fit at borders and around penetrations through tile.
 - 2. Remove and replace any damaged tiles.
- K.** Lighting Fixtures:
 - 1. All light fixtures shall be mechanically attached to the suspension system per NEC 410-16 (two per fixture unless the fixture is independently supported).
 - 2. Support of rigid lay-in (Type G) or can light fixtures:
 - a. Each fixture less than 10 lbs. shall have a single wire (wire may be slack) attached from the fixture to structure.

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b. Each fixture that weighs between 10 and 56 lbs. shall have two wires (wires may be slack) attached at diagonal corners of the fixture to structure.

c. Each fixture greater than 56 lbs. shall be directly supported to structure by approved hangers.

d. Pendant light fixtures shall be directly supported from structure with 9-gauge wire (or approved alternative).

L. Air Terminals:

1. Air terminals less than 20 lbs. shall be positively attached to the suspension system

2. Air terminals that weigh between 20 and 56 lbs. shall be mechanically attached to the suspension system. Two slack wires shall be attached from the housing to structure.

3. Air terminals in excess of 56 lbs. shall be directly supported to structure by approved hangers.

M. Sprinkler heads and other penetrations shall have 3/8" clearance on all sides.

CLEANING

A. Suspension System: Remove panel material and perform any necessary cleaning maintenance with non-solvent based commercial cleaner.

B Immediately remove any corrosive substances or chemicals that would attack painted finishes (i.e. wallpaper adhesives).

C. Touch up all minor scratches and spots, as acceptable, or replace damaged sections when touch-up is not permitted.

D. Painting: Repainting of suspension member shall be with a high-quality solvent base enamel paint and applied as recommended by paint manufacturer. Ceiling panels may be touched-up by spraying a thinned, non-bridging vinyl-acrylic flat wall paint. The type of paint selected and the method of application can alter the acoustical performance and fire ratings of any acoustical product. Therefore, USGBORAL cannot guarantee that the field-painted panels will match the published performance.

E. Removal of debris: Remove all debris resulting from work of this section.

