**CEILING** SYSTEMS

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# **TECHZONE<sup>™</sup>** Ceiling Systems WOODWORKS<sup>®</sup> Tegular Installation Instructions

## 1. GENERAL

#### **1.1 Product Description**

WoodWorks Tegular ceilings consist of perforated and unperforated 1' x 4', 2' x 2', 2' x 4', 24" x 42", 27" x 30", and 30" x 30" panels designed to be installed on conventional 9/16" wide T-Bar suspension systems.

# **1.2 Surface Finish**

All wood panels shall be constructed of wood chips factory bonded together between two layers of wood veneer finish. All exposed edges are banded with the same finish as the face.

#### 1.3 Storage and Handling

The ceiling components shall be stored in a dry interior location and shall remain in cartons prior to installation to avoid damage. The cartons shall be stored in a flat, horizontal position. The protectors between panels should not be removed until installation. Proper care should be taken when handling to avoid damage and soiling. Do not store in unconditioned spaces with humidity greater than 55% or lower than 25% RH and temperatures lower than 50°F or greater than 86°F. Panels must not be exposed to extreme temperatures, for example, close to a heating source or near a window where there is direct sunlight.

#### **1.4 Site Conditions**

WoodWorks Tegular ceiling materials should be permitted to reach room temperature and have a stabilized moisture content for a minimum of 72 hours before installation. (Remove plastic wrap to allow panels to climatize.) They should not, however, be installed in spaces where the temperature or humidity conditions vary greatly from the temperatures and conditions that will be normal in the occupied space.

#### 1.5 HVAC Design & Operation

Proper design for both supply air and return air, maintenance of the HVAC filters and building interior space are essential to minimize soiling. Before starting the HVAC system, make sure supply air is properly filtered and the building interior is free of construction dust.

#### 1.6 Temperature & Humidity During Installation

WoodWorks panels are interior finish products designed for installation in temperature conditions between 50°F and 86°F, in spaces where the building is enclosed and HVAC systems are functioning and will be in continuous operation. Relative humidity shall not fall below 25% or exceed 55%. There shall be proper ventilation of the plenum in high moisture areas. All plastering, concrete, terrazzo, or any other wet work should be completely dry. All windows and doors should be in place. The heating, ventilating, and air-conditioning system should be installed and operable where necessary to maintain proper temperature and humidity conditions before, during, and after installation of the WoodWorks panels.

#### 1.7 Color

WoodWorks panels are made with a variety of real wood veneers. Natural variations in color and grain are characteristic of wood products. To maximize visual consistency, panels should be unpacked and examined collectively to determine the most desirable arrangement for installation. Where consistency is critical, Armstrong can offer custom solutions to meet your budget and aesthetic requirements. Consult HPVA for additional information on veneers and veneer grades.

#### 2. PANEL EDGES

The edges of the Tegular panels feature 1/8" thick splines which support the panel on the grid flanges.

# 3. SUSPENSION SYSTEM

#### 3.1 General

The suspension system shall be standard 9/16" Suprafine® XL® grid. The installation shall, in all cases, conform to the requirements of the International Building Code and its referenced standards. Because these panels weigh in excess of 2.5 lbs/sf, the ceilings shall be installed per IBC Seismic Design Categories D, E, and F. Included in these requirements is the use of stabilizer bars BERC2 Clip to positively prevent the grid from separating at the walls. See CS-4141 Seismic Installations for Armstrong Ceiling Systems Brochure for more seismic requirements.

Additionally, walls or soffits that serve to support a panel edge must be braced to the structure so as not to allow movement greater than 1/8" when subjected to design lateral force loads. When such bracing is not practical or is not effective, additional mechanically connected grid components shall be provided to capture all edges of every panel. Axiom<sup>®</sup> Perimeter Trim connected to the grid with AXTBC clips will also meet this requirement.

The requirements listed here represent the manufacturer's minimum acceptable installation recommendations, and may be subject to additional requirements established by the local authority having jurisdiction.



# 3.2 Suspension Grid

The grid system layout is dependent upon the technical zone layout chosen. For details, consult the TechZone<sup>™</sup> Ceiling Systems - MetalWorks<sup>™</sup> & WoodWorks<sup>®</sup> Brochure (BPCS-4441) at armstrong.com/techzone.

# 4. INSTALLATION

# 4.1 Cutting the Panel

Cut the panel using standard woodworking tools and techniques. A table saw is recommended for straight cuts and a band saw for curved cuts. In both cases, panels should be cut face up to minimize chipping of the face veneer. Fine-toothed blades recommended for finish cuts will yield the best results.

## 4.2 Cutting the Border Panel

A router can be used to cut a Tegular edge on border panels, or a straight cutoff is possible if border clips are used to support the cut edge of perimeter panels. One border clip is required for each foot of panel edge (i.e., one clip for edges up to 12" long and two clips for edges greater than 12" up to 24"). Clips and screws are included with the panels.

**CAUTION! WOOD DUST.** Sawing, sanding, and machining wood products can produce dust. Airborne wood dust can cause respiratory, eye, and skin irritation. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.

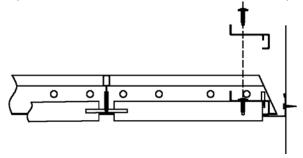
**Precautionary measures:** If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH-designated dust mask. Avoid dust contact with eyes and skin.

## First Aid Measure in case of irritation:

Flush eyes or skin with water for at least 15 minutes.

## 4.3 Attach Border Clips

Apply WoodWorks Tegular border clips to the cut edge of the panel as shown. Use one #8 x 9/16" screw in each clip.



## 4.4 Odd Size Panels

Special size panels are available to accommodate less than full modules within the field of the ceiling. A second option would be to field cut these panels to the correct dimension. Examples of conditions that might require this procedure would be odd sized panels next to a linear air diffuser or  $1' \times 4'$  light fixtures.

# 4.5 Attach Safety Cables for 2' x 4' Panels

2' x 4' panels weigh in excess of 20 pounds and, therefore, must have safety cables attached to prevent them from falling to the floor in the event of a grid failure. The safety cables will consist of an 18" length of wire rope with a small loop formed at each end and a bag snap fitted to one of the loops. Two cables are required at diagonal corners of each panel.

**4.5.1** Attach two 8" long sections of 9/16" main beam, near opposite corners, on the back of the panels. Use three  $#8 \times 9/16$ " long framing screws to secure each piece of grid. Cinch the plain end of the cable around the hanger wire closest to the corner of the panel and connect the bag snap to a hanger wire hole on the grid section.

# 4.6 Treating Exposed Edges

Cut panel edges that are exposed to view will have to be treated to look like factory edges. Prefinished peel-and-stick edge banding is available for this purpose. Cut edge must be clean and smooth before applying edge banding. Peel off the release paper (edge banding and trimming tools are ordered directly from Armstrong through the Customer Focus Center) and apply the edge banding using finger pressure or a small trim roller. Trim excess material with a sharp knife blade or with the edge trimmer available for order through Armstrong.

# 4.7 Edge Banding

Prefinished pressure sensitive adhesive banding is available 15/16" wide and in 25' lengths.

# **5.0 Seismic Restraint**

WoodWorks Tegular has been engineered for application in seismic areas. This system has been successfully tested in applications simulating Seismic Design Categories D, E, and F.

# **6.0 Cleaning Recommendations**

WoodWorks Tegular panels can be cleaned with a soft, dry cloth.

## **MORE INFORMATION**

For more information, or for an Armstrong representative, call 1 877 ARMSTRONG.

For complete technical information, detail drawings, CAD design assistance, installation information, and many other technical services, call TechLine<sup>™</sup> services at 1 877 ARMSTRONG or FAX 1 800 572 TECH.

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