

TECTUM^{INC}

The Noise Control Solution

1. Product Name

- Tectum Acoustical Ceilings
- Tectum Acoustical Walls

2. Manufacturer

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3. Product Description

BASIC USE

Tectum acoustical wall and ceiling panels have been manufactured in the same way for over six decades. The end product is an acoustical panel that stands up to the physical and aesthetic demands of public spaces.

Structurally strong and lightweight, Tectum Panels provide insulation, sound absorption and abuse resistance in a variety of finish options. Easy to work with and install, Tectum Panels and systems are cost-effective and require little maintenance.

COMPOSITION & MATERIALS

Environmentally friendly Tectum products have been made from renewable wood sources, magnesium from seawater and recovered magnesium waste since 1949.

Tectum Panels are composed of aspen wood fibers (excelsior) bonded with exclusive inorganic hydraulic cement and formed by a continuous process under heat and pressure.

ACOUSTICAL WALLS

Tectum Interior Wall Panels offer a permanent and attractive solution for any space with undesirable noise levels. They withstand the impact of gym balls or the abuse of high-traffic environs. Panel product and system options include:

- Standard Tectum Wall Panels
- V-Line Panels
- Kerfed Panels
- Sound Blocks
- Fabri-Tough Kerfed Panels
- Fabri-Tough Décor Panels
- Fabri-Tough II Kerfed Panels
- Fabri-Tough II Décor Panels
- Correctional Panels
- Finalé Panels

ACOUSTICAL CEILINGS

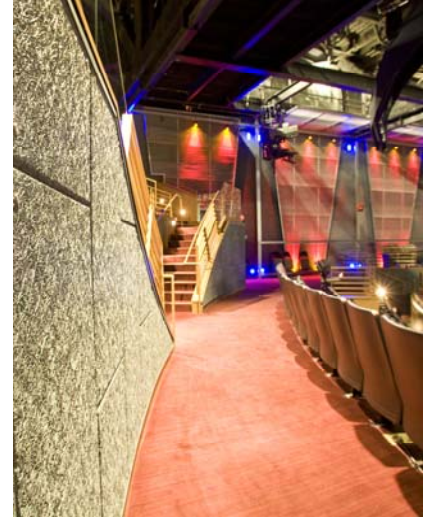
Tectum Panels are ideal for commercial, educational, institutional, recreational and performance spaces and are available in a wide range of sizes. They can be easily cut and shaped with standard woodworking tools. Direct attached or installed in ceiling suspension grid systems, Tectum Panels are the preferred product for any area where noise is a problem. Tectum Panels meet the requirements of ASTM E1264 Type XIV, Pattern L, Class A. Available aesthetic patterns and systems include:

- Lay-In Panels
- Acousti-Tough
- Tónico
- Designer
- Corridor
- Concellico
- Correctional
- Hanging Baffles
- Direct-Attached

SIZES

Tectum Panels are easily machinable using standard woodworking tools and techniques. Standard panel sizes are dependant upon edge detail specifications. All Tectum Wall Panels are available in lengths from 48 to 144" (1219 – 3658 mm) in 12" (305 mm) increments.

Standard Tectum Panels with beveled long edges come in 1, 1½ or 2" (25, 38 or 51 mm) thicknesses. Standard panel



Pearl Theater, Las Vegas, Nevada

widths are 23¾, 31¾, and 47¾" (603, 806, and 1213 mm).

Tongue-and-Groove Edged Panels come in 1½ or 2" (38 or 51 mm) thicknesses. Standard panel widths for this edge detail are 23, 31, or 47" (584, 787 or 1194 mm).

Kerfed Edge Panels come in 1 or 1½" (25 or 38 mm) thicknesses. The standard width for kerfed panels is 23¾" (603 mm).

Ceiling panel sizes and edge configurations are extensive and vary by product. Consult the Tectum website at tectum.com for specific information.

COLORS

All Tectum Panels are available in natural or white and can be ordered in custom colors or field painted without reducing their acoustical properties.

LIMITATIONS

Water Exposure. Tectum acoustical panels can be used over swimming pools and in open construction such as breezeways, open garages and shelter houses; however, they are not

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recommended for installations where the design causes them to be exposed to condensation or water. Reveal edge panels should not be used for these purposes. Contact Tectum Inc. for specific installation requirements for applications where interior relative humidity exceeds 50% during the heating season.

Dimensions – Panel thickness dimensions indicated in Tectum literature are nominal.

- Tolerances on length, specified at +1/8", -1/4" (+3.2, - 6.4mm) maximum length 144" (3.7 m)
- Tolerances on width specified +0", - 1/8" (-3.2 mm)
- Tolerances on thickness - + 1/16", - 1/8" (+1.6, -3.2 mm)
- Tolerances on density – 21 pcf (336 kg/m³) +/- cu ft.

Ventilation – The ventilation recommendations of the current edition of the ASHRAE Handbook of Fundamentals and Guide and Data Book should be followed. In particular, adequate ventilation should be provided to remove condensation and construction moisture. Ventilation may be mechanically induced by drawing some return air through the ceiling openings and across the plenum area into the return air duct or by providing a sufficient number of ceiling grilles to promote uniform gravity air movement through the plenum area.

Thermal and Hygrometric Movement

Tectum plank does not require expansion or control joints to compensate for temperature induced movement. However, when designing and locating control joints, the design professional should consider the linear expansion of Tectum plank, due to changes in relative humidity, as well as the recommendations of manufacturers of adjoining materials which may have potential for expansion or contraction due to temperature changes.

Ceiling Grid – Suspension grid system must be at minimum intermediate-duty with 1½" (38 mm) high square bulb main runners and cross tees.

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM C635 Standard Specification for the Manufacture, Performance, and Testing of the Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E1264 Standard Classification for Acoustical Ceiling Products

New York City Board of Standards and Appeals (BSA)



Grey Eagle Casino, Alberta, Ontario

BUILDING CODE COMPLIANCE & ASSEMBLY DESIGNS

Current data on building code requirements and product compliance may be obtained from technical support specialists at Tectum Inc. Installation must comply with the requirements of all

applicable local, state and national code jurisdictions.

- ICC-ES Evaluation Report: ESR-1112
- BSA Calendar No. 391-52-SM
- Corps of Engineers Guide Specifications CE-219.01
- Los Angeles Research Report RR25165
- SBCCI Report No. 9406B
- State of California DSA Number PA-008
- Complies with ASTM E1264, Type XIV, Pattern L, Class A
- Underwriters' Laboratories of Canada, Ltd., label

ENVIRONMENTAL CONSIDERATIONS

The wood fibers (excelsior) used in Tectum Panels come from Wisconsin Aspen trees. The Wisconsin Aspen is a self-propagating tree. When cut, a new tree will begin to grow back from its root structure. In addition, all Wisconsin Aspen used for Tectum is air-dried. No drying kilns are used. The wood is stored in racks to age naturally. No chemicals are used in the production of any excelsior purchased by Tectum Inc.

Tectum Inc. only purchases excelsior from a single source that is affiliated with both the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiatives (SFI) programs. These programs are a comprehensive system of objective and performance measures that integrate the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality. All loggers are trained to adhere to FSC and SFI principles.

Magnesium oxide is mixed with magnesium sulfate (Epsom salts) to form the primary binder. Since production began, in 1949, Tectum Inc. has recaptured waste to manufacture the magnesium sulfate used in the primary binder. The secondary binder is composed of sodium silicate and calcium carbonate (limestone). All of the water used in the manufacture of Tectum products is captured and recycled.

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For complete information about Tectum products and LEED, please see our Marketing Bulletins M-81 (Tectum Products and LEED Certification) and M-83 (Tectum Products and LEED Q & A) or our Environmental Statement. All of these materials are available online at tectum.com.

PHYSICAL/CHEMICAL PROPERTIES

Test reports and additional technical information are available online at tectum.com.

THERMAL PERFORMANCE

R-value is 1.76 per inch ft² x h x °F/Btu (0.31 m² x K/W) of thickness.

LIGHT REFLECTANCE

Up to 75%. Typical range: natural – 60%; field painted white – 70%.

FIRE PERFORMANCE

- Class I/Class A interior finish when unpainted. (Field painting may alter surface burning characteristics.)
- Flamespread, 25 or less
- Smoke developed, 450 or less

SOUND PERFORMANCE

NRC up to 1.00.

5. Installation

PREPARATORY WORK

Handle and store product according to recommendations of Tectum Inc. Do not subject product to moisture. Store product in original packaging in a dry place, not in contact with floors or walls. Protect against soiling or marring.

Verify that the framing members, grid system or other substrate to which Tectum panels are to be attached is installed properly, and do not proceed with the installation until all unsatisfactory conditions are corrected. Complete installation recommendations are available online at tectum.com.

METHODS

The building in which the Tectum Panels are to be installed should be closed in and, in cold seasons, the heating system should be in operation before installation.

Materials should be at the jobsite for at least 24 hours prior to installation so that they can reach temperature and humidity equilibrium. Complete installation recommendations are available online at tectum.com. See Technical Bulletin T-60.

PRECAUTIONS

- All installations should be in accordance with the Ceiling and Interior Systems Construction Association's (CISCA's) Code of Practices.
- Tectum Wall Panels should always be beveled on the long side.
- Use 8' (2.4 m) or smaller when 3 or more panels are butted end to end.
- The butting of end joints will require field cutting to ensure proper alignment.
- Reveal edge panels (Tonico or Designer) should not be used in areas where high humidity exists.

6. Availability & Cost

AVAILABILITY

Tectum products are well represented by a team of approved distributors across the country and around the world. To locate a distributor in your area, please visit tectum.com/contacts.

COST

Budget installed cost information may be obtained from your local Tectum distributor.

7. Warranty

Tectum Inc. believes the information and recommendations herein are accurate and reliable and the products mentioned herein are fit for the recommended purposes. However, as use conditions are not within its control, Tectum Inc. does not guarantee results from use of such products or other information herein. Tectum Inc. assumes full responsibility for its products and systems when installed and erected by an approved contractor in accordance with published recommendations at the time of purchase. No responsibility will be assumed for other applications not referred to in the literature. Liability is limited to a refund of

the purchase price or replacement of the material.

8. Maintenance

As with all construction assemblies, periodic inspection of the installed components is recommended in order to ensure system integrity and maximum service life.

9. Technical Services

A staff of service personnel offers design assistance and technical support. For technical assistance contact Tectum Inc. at 888-977-9691.

10. Filing Systems

- Sweets online at products.construction.com
- AEC Daily at aecdaily.com
- Specific technical product information is available from Tectum Inc. online at tectum.com or at 888-977-9691.
- SmartBuilding Index



Como Park, St. Paul, Minnesota

Complete specifications, drawings and specific product details are available at tectum.com.