



Application

Conwed Diffusers are designed for use in performance areas, auditoriums and other facilities requiring enhanced quality and acoustical performance. Diffusers scatter and blend sounds for a broad range of frequencies and improve the quality of music environments.

By reflecting and absorbing sounds, diffusers blend the sound field in a room resulting in a more pleasant listening experience. Various sizes of pyramidal diffusers are available to meet the most demanding project needs. These rugged and easy to install diffusers are supplied with hardware for either wall or ceiling applications.

Construction

Diffusers are constructed of 1/8" thermoformed fire resistant plastic, and are molded to a special offset pyramidal shape. The surface is white and lightly textured, or, fabric can be applied directly to the face forming a full finished edge with tailored corners. The internal portion can be lined with a 1 1/2" thick layer of glass fiber batt to enhance sound absorption. Fiberglass diffusers are also available without finish.

| Type | Nominal Size |
|-----------|--------------|
| Pyramidal | 2'x2' |
| | 2'x4' |
| | 4'x4' |

* These sizes are available in rigid fiberglass only. Custom shapes and sizes are available upon request.

Size availability

Diffusers are offered in a white lemon peel texture, or are available with fabric coverings. Contact Conwed for available fabrics and colors.

Mounting

Wall Diffusers, which have a straight edge, mount using a combination of L-angles and hook and loop fasteners. Ceiling Diffusers normally come in a flanged configuration to fit standard-sized ceiling grid. Note that internally lined diffusers require heavy-duty grid. Optionally, Ceiling Diffusers can be supplied with straight edge and L-angles for direct mounting to solid surfaces.

Acoustical performance

All Conwed products are constantly modified to achieve their maximum acoustical performance while providing the aesthetics desired in their applications.

Please consult with your Sales Representative, or the Company's Technical Services Department for assistance in determining the proper panels, and their acoustical specifications, for your application.

Warranty (3-year limited)

Wall Diffusers have a limited 3-year warranty starting from date of shipment. The panels are warranted to be free from defects in material. See product warranty for details and limitations.

* The ASTM E 84 standard should be used to measure and describe the properties of materials, products or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products or assemblies under actual fire conditions. However, results of this test may be used as elements of a fire risk assessment, which takes into account all of the factors, which are pertinent to an assessment of the fire hazard of a particular end use.



respond[®] diffusers

Pyramidal

PART 1 – General

- 1.1 Work in this section shall be subject to drawings, general conditions, schedules, addenda and other contract documents.
- 1.2 The extent of the acoustical panels is shown on the drawings and in the schedules.
- 1.3 Submit _____ (select quantity) samples of each type of acoustical panel as shown on the drawings and in schedules and include appropriate technical information including test data and maintenance instructions. Submit _____ (select quantity) fabric selector cards from manufacturer's standard finishes, or designer specified finishes.
- 1.4 Acoustical panels shall be installed according to manufacturer's recommendations and instructions.
- 1.5 Installation of acoustical panels shall not begin until all wet work (plastering, concrete, etc.) is completed and dry. Building shall be properly enclosed and under standard occupancy conditions (temperature of 60-85°F and not more than 70% relative humidity) before installation begins.
- 1.6 The contractor shall be responsible for the examination and acceptance of all surfaces and conditions prior to the acoustical panel installation.
- 1.7 Substitutions or changes will only be permitted by prior approval by the architect.

PART 2 – Materials

- 2.1 Pyramidal Diffusers shall be constructed of: 0.125" Thermoformed plastic: 2'x2', 2'x4' and 4'x4' Pyramidal. Actual wall mount sizes are 22-7/8" and 46-7/8". The diffuser is molded in one-piece special offset pyramidal shape. If required, the internal pyramidal portion of the diffuser shall have (1 1/2" thick layer glass fiber batt adhered to it) or (fire resistant gypsum board). Sizes shall be nominal (2'x2'), (2'x4'), (4'x4'), (custom).
- 2.2 Panel finish shall be (white, lightly textured), (woven polyester fabric), (manufacturer approved custom fabric). Fabric finish shall be applied directly to the face and edges of the panel and returned to the back of the panel to provide a full finished edge; all corners to be fully tailored.
- 2.3 Edges shall be (flanged) for laying into grid, or (straight) for wall and some ceiling applications.
- 2.4 Where ceiling diffusers with internal liner are specified (standard for 4'x6' and larger), the grid shall be rated heavy duty. All grid shall be 15/16 inch width.
- 2.5 Diffusers shall be mounted utilizing concealed L-Angle/Hook and Loop for wall application.
- 2.6 Diffusers shall have a Noise Reduction Coefficient of ____, and sound absorption coefficients of ____ at 125 Hz, ____ at 250 Hz, ____ at 500 Hz, ____ at 1000 Hz, ____ at 2000 Hz, and ____ at 4000 Hz. (Select values from Technical Bulletin "Application & Performance of Acoustic Wall & Ceiling Diffusers")

- 2.7 All components utilized in the construction of the Conwed[®] Diffusers shall meet a Class A rating as tested per ASTM E-84, Surface Burning Characteristics of Building Materials.

PART 3 – Execution

- 3.1 Installation of all Diffusers shall not begin until all wet work, such as plastering, concrete, etc. is completely dry. The panels are designed for installation under standard occupancy conditions from 60°F to 85°F and at not more than 80% R.H. in an enclosed building.
- 3.2 The contractor shall be responsible for the examination and acceptance of all surfaces and conditions prior to panel installation.
- 3.3 All Conwed[®] Diffusers shall be installed in accordance with the manufacturer's specifications and recommendations.
- 3.4 All necessary hardware and accessories for the complete job installation are to be furnished by the contractor.
- 3.5 Protection – Protect installed work from damage due to subsequent construction activity on the site

**Thank you for choosing Conwed[®]
for your acoustical needs.**

The information provided above is correct to the best of our knowledge at time of printing. We reserve the right to make changes without prior notification.

Environmental and Sustainability

Conwed is a worldwide leader in building material systems, insulation and composite solutions, delivering a broad range of high-quality products and services. Conwed is committed to driving sustainability by delivering solutions, transforming markets and enhancing lives. More information can be found at www.conwed.com.

Notes

For additional information, refer to the Safe Use Instruction Sheet (SUIS) found in the SDS Database via www.conwed.com.

DISCLAIMER OF LIABILITY

Technical information contained herein is furnished without charge or obligation and is given and accepted at recipient's sole risk. Because conditions of use may vary and are beyond our control, Conwed makes no representation about, and is not responsible or liable for the accuracy or reliability of data associated with particular uses of any product described herein.



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