



## Diffusers: Barrel

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

### Project architect responsibility

This is a general specification guide, intended to be used by experienced construction professionals, in conjunction with good construction practice and professional judgment. This guide is to aid in the creation of a complete building specification that is to be fully reviewed and edited by the architect of record (specifier). Sections of this guide should be included, edited, or omitted based on the requirements of a specific project. It is the responsibility of both the specifier and the purchaser to determine if a product or system is suitable for its intended use. Neither Conwed, nor any of its subsidiary or affiliated companies, assume any responsibility for the content of this specification guide relative to actual projects and specifically disclaim any and all liability for any errors or omissions in design, detail, structural capability, attachment details, shop drawings or other construction related details, whether based upon the information provided by Conwed or otherwise.

## SECTION 098416 – Fixed Sound-Reflective Panels

### PART 1 - General

#### 1.1 — SUMMARY

A. Section includes:

Fixed sound-reflective panels.

B. Related work:

The following items are not included in this Section and are specified under the designated Sections:

Section 092100 – PLASTER AND GYPSUM BOARD ASSEMBLIES for plaster and gypsum board walls and ceilings.

#### 1.2 — SUBMITTALS

A. Product data:

Submit manufacturer's product data including certified laboratory test reports and other data required to show compliance with these specifications.

B. Samples:

Submit 8 ¾ x 11 inch (for thicknesses up to 1 ½ inches) or 11 ½ x 11 ½ inch (for thicknesses larger than 1 ½ inches) samples of representative panel with factory detailed edge, and representative samples of mounting devices.

#### 1.3 — QUALITY ASSURANCE

A. Pre-installation conference:

Conduct conference at Project site to comply with requirements in Division 01.

#### 1.4 — DELIVERY, STORAGE, AND HANDLING

A. Project conditions:

Protect system components from excessive moisture in shipment, storage, and handling. Deliver in unopened bundles and store in a dry place with adequate air circulation. Do not deliver material to building until wet conditions such as concrete, plaster, paint, and adhesives have been completed and cured to a condition of equilibrium.

**1.5 — LIMITED WARRANTY**

A. Limited warranty:

Provide manufacturer's standard limited 3-year warranty against manufacturing defects in material or workmanship.

**PART 2 - Products****2.1 — SOUND DIFFUSERS:**

A. Basis-of-Design: Conwed Diffusers: Barrel.

1. **Construction:** 0.125 inch thermo-formed fire resistant plastic molded to a one-piece barrel. Also available as fiberglass laid behind a gel coat finish in a mold.
2. **Sizes (feet):** 2 x 2, 2 x 4, 3 x 3, 4 x 2, 4 x 3, 4 x 4, 4 x 8, 6 x 3, 6 x 4, and 8 x 4.
3. **Sizes (feet):** 4 x 8, 6 x 3, 6 x 4, and 8 x 4 sizes are only available in rigid fiberglass gelcoat.
4. **Corners:** Square.
5. **Edge profile:** Straight.
6. **Edge profile:** Flange.
7. **Finish type:** Thermoformed with White Haircell texture.
8. **Finish type:** Fiberglass gelcoat with white lemon peel texture.
9. **Finish type:** Chosen paint color.
10. **Fabric finish:** Manufacturer, pattern and color as selected; applied directly over face and edges of panels to provide full finished edge, fully tailored corners.
11. **Mounting type (wall):** Straight edged diffusers: L-angles and hook and loop fasteners.
12. **Mounting type (ceiling):** Flanged to fit standard  $1\frac{5}{16}$  inch ceiling grid.
13. **Mounting type (ceiling):** Straight edge with L-angles.
14. **Flammability (ASTM E 84):** Panel components shall have a Class "A" rating per ASTM E 84.
15. **Acoustical performance:** Values below are for panels mounted in accordance with ASTM C 423 (Type D5 Mounting) and vary by panel thickness and finish.
  - a. **Noise reduction coefficient (NRC):** 0.10.

**PART 3 - Execution****3.1 — INSTALLATION:**

A. Verify wet work such as plastering and concrete is complete and dry. Verify building is enclosed and under standard occupancy conditions (60 - 85°F and not more than 70% relative humidity) prior to start of installation. Commencement of installation constitutes Installer's acceptance of surfaces and conditions.

B. Install products in accordance with manufacturer's written instructions and in proper relationship with adjacent construction.

C. Touch-up, repair or replace damaged units until satisfactory results are obtained.

— End of Section —