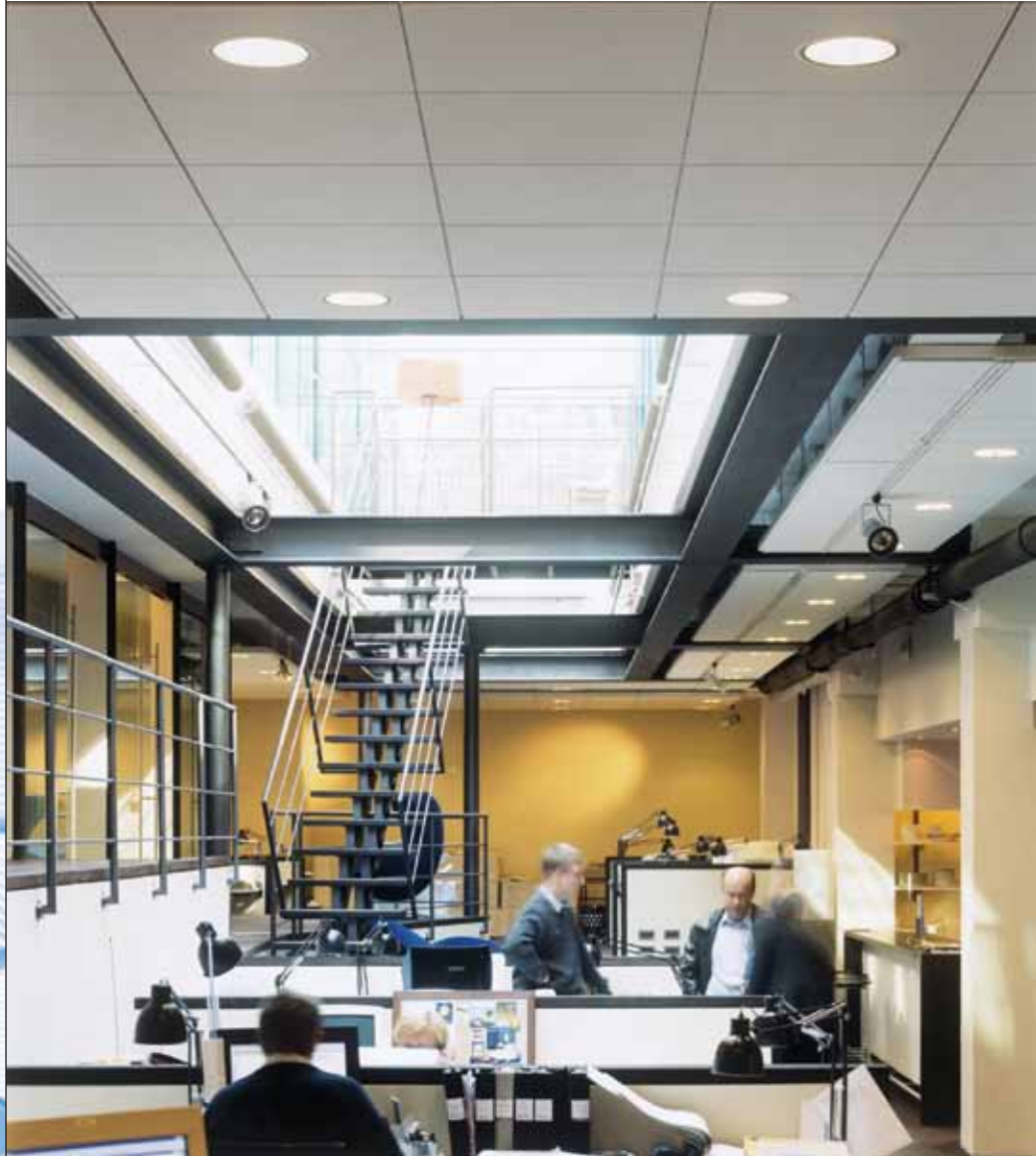


CertainTeed Ceilings

decoustics® Ecophon® Gyptone® PERFORMA®



OFFICE

For healthier, more productive office environments.



**CertainTeed**  
SAINT-GOBAIN

Noisy offices are hard to ignore.

The buzz of activity in today's office environments is actually affecting workers' productivity – and not in a good way. Trends in office building design feature more workers occupying increasingly less office space. As a result, cavernous spaces, open office plans, large dining areas and the constant sound of office equipment contribute to increased noise levels. A growing body of research shows that this noise negatively impacts workers' productivity and health. We believe the solution is clear – effective **Environmental Acoustics™** research and design.

To achieve effective Environmental Acoustics design, CertainTeed Ceilings offers the full spectrum of choices. These include customizable forms to bring your unique design to life, easy-to-install panels in a wide range of profiles and sustainable options – all delivering superior acoustical performance.

At CertainTeed, our experience is rooted in evidence-based design and we can help you create healthier, more productive work spaces. You can Be Certain™ we'll help you create office environments that combine the best acoustics with extraordinary aesthetics.



Ecophon® Gedina™



*"We always plan for flexibility so the space can easily be reconfigured as the number of employees increases or decreases."*



Ecophon® Gedina™

### **Effective Environmental Acoustics Design**

- Increased worker productivity
- Reduced distractions
- Reduced stress
- Reduced fatigue
- Reduced illnesses
- Increased job satisfaction
- Reduced absenteeism and turnover

Environmental Acoustics design means helping workers be more productive and healthier.

Effective Environmental Acoustics™ research and design enhances office workers' environment. In fact, many of research studies have analyzed the effects of noise on workers' performance and physical symptoms of stress. Several establish clear links between noise levels and lost concentration, illness and low morale. Specifically, these studies show that noisy work environments decrease productivity, increase fatigue, stress and illness and contribute to lower job satisfaction. Conversely, office environments that are designed to be less noisy, more productive and attractive can be used as a recruiting tool to attract and retain top talent.

Physical surroundings in any given setting contribute to a space's environmental acoustics. Even at low levels, noise can overpower the sounds we want or need to hear. Effective Environmental Acoustics design can help control sound to ensure a space will achieve the purpose for which it was designed.





## Increasing productivity through Evidence-based Design.

A well-designed acoustical environment can improve worker performance and reduce absenteeism and turnover. Unfortunately, many employers are unaware of noise-related consequences, which are documented extensively through research.

| Challenge                                 | Reduced distractions   |
|---|--|
| Evidence-based Links to Noise Disturbance | Concentration is impaired by various components of office noise, including ringing telephones and people talking in the background. <sup>1</sup> When workers lose their train of thought, it takes up to 15 minutes to reorient to a task following a noise distraction. <sup>2</sup> |
| The Solution                              | Sound insulating and sound absorbing materials can reduce noise disturbances. <sup>3</sup>   |

| Challenge                                 | Decreased worker productivity  |
|---|--|
| Evidence-based Links to Noise Disturbance | Conversational distraction and uncontrollable noise are the primary causes of productivity loss within offices. <sup>4</sup> |
| The Solution                              | Effective acoustic design in office environments benefits work performance and subjective comfort. <sup>5</sup>              |

| Challenge                                 | Reduced concentration  |
|---|--|
| Evidence-based Links to Noise Disturbance | Distractions and interruptions are most detrimental for complex cognitive tasks with high information processing demands. <sup>2</sup>       |
| The Solution                              | Office spaces appropriately designed to improve acoustical conditions can increase a worker's ability to focus on tasks by 48%. <sup>6</sup> |

*"While previously restricted, there are now more spaces applicable to acoustical products. And, since noise ratings have improved, new acoustical products allow you to be more creative with other finishes."*



Gyptone® BIG™ Line 6

### Challenge

### Absenteeism and employee turnover

#### Evidence-based Links to Noise Disturbance

Increased exposure to noise can result in higher incidences of absenteeism and employee turnover.<sup>7</sup>

#### The Solution

For office buildings, choose materials that absorb, block or cover noise. Ceilings are an effective area on which to focus because sound rises and bounces off the ceiling.<sup>7</sup>

### Challenge

### Lack of awareness of the effects of office noise

#### Evidence-based Links to Noise Disturbance

The majority of employers do not recognize the severity of the noise problem.<sup>8</sup>

#### The Solution

Facility managers, business owners and designers can create an effective acoustic environment without sacrificing aesthetics.<sup>8</sup>

1. Ergonomics, Jan. 2005.
2. Sound Matters, produced by the General Service Administration, December 2011.
3. Ecophon Acoustic Bulletin, March 28, 2011.
4. American Society of Interior Designers, 2005.
5. Indoor Air, Dec. 19, 2009.
6. Sykes, David M, "Productivity: Impacts of Ambient Noise, Speech Privacy & Acoustical Conditions on Worker Performance," The Remington Group, 2004.
7. Office Furniture USA *Insights*, Issue 2.
8. *Occupational Health & Safety*, September 2002.



## Achieving healthier, more sustainable office environments through Evidence-based Design.

Research has shown that prolonged exposure to noise may have serious health ramifications, such as increased illnesses, fatigue, accidents and stress. In addition, poor Indoor Air Quality (IAQ) can cause or aggravate respiratory illnesses. Since noise and poor IAQ directly affect health, communication and quality of life, acoustical materials must be carefully considered in the context of a building's sustainability.

| Health Challenge                          | Fatigue  |
|---|--|
| Evidence-based Links to Noise Disturbance | General noise levels in offices (50-60dB on average) contribute to increased fatigue among workers. <sup>9</sup> |
| The Solution                              | Design office spaces to reduce noise levels by 12-30 dB. <sup>9</sup>  |

| Health Challenge                          | Stress and discomfort  |
|---|--|
| Evidence-based Links to Noise Disturbance | Background noise adds to stress and discomfort. <sup>10</sup>  |
| The Solution                              | Applying acoustic solutions can greatly increase the overall comfort level of a space, while poor acoustic design can result in dangerous, unhealthy environments. <sup>11</sup> |

### AIA CEU Classes

The following courses can be accessed through AIA at [aia.learnflex.net](http://aia.learnflex.net). Call your local CertainTeed Ceilings representative to schedule our presentations in your office.

*Need GBCI credits? We can help!*

**Acoustic Ceilings: For the Eye, Ear, Mind** – EC0004

**Ceilings: Classroom Acoustics** – BSP62

**Publications for Product Life Cycle Assessment** – BSS741

**Acoustic Ceilings in the Modern Office** – (Coming soon)

*More CertainTeed sponsored classes:*

**Ceilings in the Healthcare Segment** – BSS738

*"The trend is to move towards open office versus closed offices so employees have more access to each other."*



Ecophon® Solo™ Circle

### Health Challenge

### Indoor Air Quality

#### Evidence-based Links to Indoor Air Quality

Inhalation exposure to formaldehyde in humans can result in respiratory symptoms, and eye, nose, and throat irritation. Emission limits for ceiling products have been set by the California Department of Public Health and been adopted by U.S. Green Building Council for LEED point systems and other environmental building design guides, as the International Agency for Research on Cancer (IARC) classifies formaldehyde as a human carcinogen.<sup>12</sup>

#### The Solution

Specifying ceiling products that are certified compliant to the current (2010) standard for formaldehyde emission will promote healthy indoor air quality.<sup>13</sup>

### Health Challenge

### Noise Pollution

#### Evidence-based Links to Noise Disturbance

Unwanted noise is a form of pollution that constitutes a threat to health.<sup>14</sup>

#### The Solution

Good acoustics contributes to a sustainable world and must be a part of sustainable design.<sup>15</sup>

9. Helena Jahnncke, University of Gavle, Nov. 2012.

10. Environmental Building News, February 2012.

11. Acoustics.com, 2003-2009.

12. U.S. Environmental Protection Agency, "Health and Environmental Effects Profile for Formaldehyde".

13. California Department of Public Health, "Std. Test Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers v1.1 (2010)".

14. Walls & Ceilings, December 7, 2010.

15. Ecophon Acoustic Bulletin, October 11, 2011.



## Case Study : El Paso Corporate Office Building

**Challenge:** Renovate a 32-story historic office building to meet LEED certification and the stringent acoustic requirements involved in converting a closed office design to an open plan office space.

**Influences:** Acoustic control and performance played a key role in the ceiling design and installation. Removing walls could cause considerable disruption to employees, therefore ceilings needed to absorb as much sound as possible. At the same time, a flexible ceiling design solution had to accommodate rearrangement of modular walls. Equally important, the project required high-performing green products that would best contribute to LEED credits.

**Solution:** CertainTeed delivered a ceiling solution that offered industry leading sustainable appeal and outstanding acoustic benefits. Specifically, our Ecophon® Gedina™ high-density fiberglass ceiling panels absorbed sound and reduced the distance noise travels, making the space quieter. In addition, Ecophon offered low VOC emissions, natural mold resistance, high moisture durability and the highest LEED recycled content of any North American ceiling product. The ceilings system was easy to install, which is especially important on such a large-scale project. Ecophon worked so well that when the building's new owner made changes to the design layout, the acoustic and IAQ solutions remained effective.



## Case Study : Summit Partners Office Space

**Challenge:** Remodel a high-end office space for a growth equity firm and create an eye-catching suspended ceiling for a reception area and boardroom that offer easy access for future maintenance.

**Influences:** The proposed solutions had to accommodate a trapezoid-shaped boardroom that had a complex "saw tooth" patterned ceiling with a series of sharp V shapes. In addition, the reception area required a monolithic, smooth-curved ceiling. To address the need for easy ceiling access, a unique suspended ceiling grid was required to allow each panel to be spring-loaded, eliminating panel removal and reinstallation during and after maintenance in the plenum.

**Solution:** Strict attention to detail allowed Decoustics® to proactively solve problems in the initial design and help the contractor produce flawless results. Custom butterfly clips were designed to fit each Decoustics® Claro® panel in the boardroom, accommodating the unique panel shapes and incorporating lighting, sprinkler and HVAC systems, while still fulfilling the need for 100% downward panel accessibility. The clips also made installation easier and faster. In total, the Decoustics solutions delivered the desired ambience, excellent light distribution, easy access and high sound absorbency to address the customer's acoustical concerns.





You'll find the ideal solutions for every space in an office building.



Ecophon® Gedina™ E

## Open office plan

- Excellent sound absorption and containment
- Enhanced speech privacy
- Complementary sound absorption/walls

### Recommended Products

|  |      |
|--|------|
| Performa® Open Plan                        | \$   |
| Performa® VOC Compliant Symphony® <i>f</i> | \$\$ |
| Ecophon® Gedina™ E                         | \$\$ |



Ecophon® Texona Wall Panels

## Conference rooms/ Closed offices

- Excellent sound absorption
- Enhanced speech intelligibility
- Exceptional aesthetics

### Recommended Products

|                              |          |
|------------------------------|----------|
| Performa® Symphony® <i>m</i> | \$\$     |
| Ecophon® Texona Wall Panels  | \$\$\$   |
| Performa® Adagio®            | \$\$\$\$ |



Performa® Symphony® *m*

## HR/Legal offices

- High light reflectance
- Excellent sound containment
- Enhanced speech privacy

### Recommended Products

|                            |          |
|----------------------------|----------|
| Performa® Cashmere         | \$\$     |
| Gyptone® Sixto             | \$\$     |
| Performa® Adagio® High CAC | \$\$\$\$ |



Ecophon® Focus™ Dg with Focus™ Wing

## Lobby/ atrium

- Superior Indoor Air Quality
- Exceptional aesthetics
- Enhanced speech intelligibility

### Recommended Products

|                    |          |
|--------------------|----------|
| Ecophon® Solo™     | \$\$     |
| Gyptone® BIG™      | \$\$\$   |
| Decoustics® Claro® | \$\$\$\$ |



Decoustics® Quadrillo®

## Corridors

- Excellent sound absorption and containment
- Enhanced speech privacy
- High light reflectance

### Recommended Products

|                              |          |
|------------------------------|----------|
| Performa® Symphony® <i>g</i> | \$       |
| Performa® Tufcore            | \$\$     |
| Decoustics® Quadrillo®       | \$\$\$\$ |



Ecophon® Solo™

## Dining areas

- Excellent sound absorption and containment
- Cleanable surfaces
- Enhanced speech intelligibility

### Recommended Products

|                                 |        |
|---------------------------------|--------|
| Performa® Rx Symphony® <i>m</i> | \$\$   |
| Performa® Rx Symphony® <i>f</i> | \$\$   |
| Ecophon® Meditec™               | \$\$\$ |

Four diverse brands. Deep industry expertise.  
We deliver ceiling solutions tailored to your needs.



CertainTeed Ceilings has the product breadth and expertise to help you specify the ideal solutions for your office building designs. We've brought together four brands with a broad array of aesthetic, acoustic and performance properties, which make almost any ceiling a possibility. With extensive experience in the office setting, we can help you account for the many variables involved in creating effective Environmental Acoustics design while also meeting aesthetic and sustainability demands.

With Environmental Product Declarations (EPDs) for 21 of our ceiling product families, we are committed to environmental transparency. You can see the CertainTeed Ceilings sustainability story and view our EPDs at [CertainTeed.com/Ceilings](http://CertainTeed.com/Ceilings).



Decoustics® Quadrillo®

## decoustics®

**Decoustics frees you to bring your one-of-a-kind ceiling design to life.**

Dramatic custom forms make even the most elaborate vision a possibility with ceilings from Decoustics. These precisely engineered ceilings offer a truly unique look, ideal for creating signature lobbies and other elegant spaces. They meet the highest quality standards, helping your finished design live up to and exceed your expectations. Now the only limit is your imagination.

- Extensive customization enables truly unique designs
- Broad range of wood options
- Unmatched acoustics and performance



Ecophon® Solo™ Square

## Ecophon®

**Achieve stunning, acoustically sound ceilings with Ecophon.**

Ecophon ceilings offer countless designs and shapes, along with superior acoustical performance and functionality. Their ability to handle rigorous cleaning and disinfecting increases hygiene and contributes to healthier office environments. Plus, our exclusive 3RD technology combines a high content of recycled glass with a renewable plant-based binding agent, completely replacing traditional petroleum-based binding.

- Outstanding acoustical performance
- Extensive array of designs and shapes
- Wall-to-wall and non-continuous ceiling options

*"I think employees would agree the feel of a quiet, yet open office design, is more versatile as well as feels less cold, sterile and institutional."*



Gyptone® BIG™ Quattro 41

## Gyptone®

**Perforated gypsum panels allow for monolithic ceiling-to-wall designs.**

Gyptone acoustical suspended ceilings and walls cover a broad spectrum of patterns, sizes and solutions. Contemporary visuals without visible breaks or joints provide excellent acoustics for lobbies, cafeterias and break rooms.

- Broad spectrum of patterns, formats and solutions
- Smooth, paintable surface simplifies installation and maintenance
- Recyclable and reusable gypsum and paper



Performa® Open Plan

## PERFORMA®

**A complete range of easy-to-install products, Performa offers best-in-class value and performance.**

Performa ceilings meet your space's needs with a full spectrum of attractive and acoustically sound design solutions. Extensive sizes, textures and edge details or profiles can suit a wide range of performance and aesthetic requirements throughout the office environment. In addition to third-party certified EPDs, many of our Performa products are third-party tested and certified for recycled content and VOCs, meeting California's stringent protocols for formaldehyde.

- Easy-to-install sizes, textures, edge details and profiles
- Third-party certified VOC Compliant ceilings
- Over 20 product families with third-party certified EPDs



**DECOUSTICS®**  
**ECOPHON®**  
**GYPTONE®**  
**PERFORMA®**

You can Be Certain™ that CertainTeed Ceilings is your source for complete ceiling solutions and expertise.

No other manufacturer offers the depth and breadth of products that we do, for ensuring every space attains ideal Environmental Acoustics solutions, and every person can achieve their greatest potential. Our deep industry knowledge, continual innovation and sustainable efforts empower you to provide a sounder environment in any setting.

[ **Be Certain** ] Confidence worth building on.®

**ASK ABOUT ALL OF OUR OTHER CERTAINTEED® PRODUCTS AND SYSTEMS:**

ROOFING • SIDING • TRIM • DECKING • RAILING • FENCE • FOUNDATIONS  
GYPSUM • CEILINGS • INSULATION • PIPE

[www.certainteed.com](http://www.certainteed.com)

CertainTeed Corporation  
P.O. Box 860  
Valley Forge, PA 19482

Professional: 800-233-8990  
Consumer: 800-782-8777

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