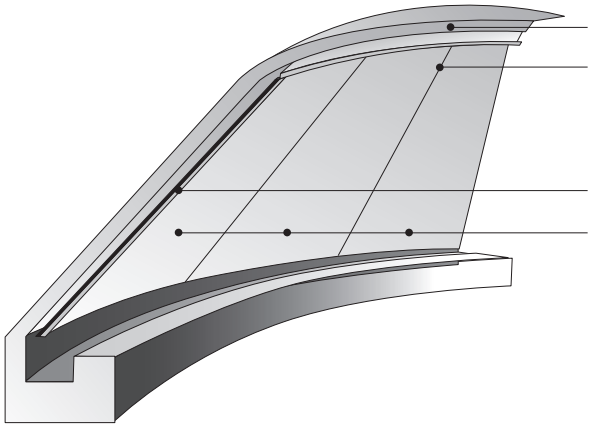
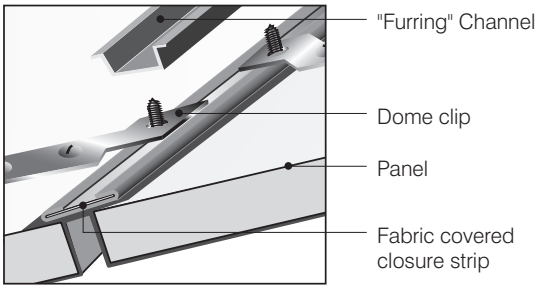
Custom Curved Cone Ceiling

decoustics®





DESIGN AND SPECIFICATIONS

Description

Decoustics acoustically absorptive panels provide architects and designers with conical ceilings without the problems of sound focussing and reflection normally associated with traditional hard surface finishes such as gypsum board, plaster, glass reinforced gypsum (GRG), fiber reinforced polyester (FRP), or wood.

Cone Shape panels consist of complex, two-dimensional pre-curved sections having a variable radius throughout the curve. Conical ceilings are made up of multiple, precisely engineered panels. A variety of mounting methods can be employed depending on plenum access requirements, available substrate, plenum clearance, and panel joint preference. e.g. defined, closed reveal or open reveal.

Panels

All Decoustics panels are custom fabricated and offered in a variety of types, sizes, geometric shapes, ellipses, vaults, acoustical domes, thicknesses, and finishes.

Limitations

Minimum radius is 30" (760mm).

Design Considerations

The need for a conical substrate. If, however, a conical substrate already exists, panels can be directly mounted to it.Depending on panel radius and thickness, exposed darting along the edges may result with some fabric finishes which may or may not be prominent. However, darting is minimized when using Decoustics standard fabrics. Contact Decoustics for specific information. Darting will always be visible with vinyl finishes.

Under certain lighting conditions, depending on panel radius and finish, manufacturing "ridge" lines may be visible. Contact Decoustics for best finishes to use with specific lighting.

Maintenance

Refer to appropriate Decoustics "Cleaning and Maintenance Instructions" for any specific finish.

Related Data

Refer to specific ceiling system literature, e.g. Direct Mount, etc. for detailed data such as acoustical test data, fire test data, ceiling system details including perimeter trim options (ensure trim is compatible with pre-curved panels), and similar information.

Standards, Tests and Approvals

Surface Burning Characteristics (ASTM E-84):All panel components have a Flame Spread rating of less than 25.

Note: Building code requirements may necessitate composite panel testing based on specified finish.

A panel comprised of “Class A” (Flame Spread of 25 or less) components does not necessarily produce a composite panel meeting the “Class A” requirement. Decoustics has a considerable number of composite panel tests on file.

Acoustical Data (ASTM C423: Type F5 Mounting as per ASTM E795).

Panels were tested with 3/16" (5mm) clip mounting.

Performance Data

FINISH	EDGE OPTIONS	SIZES	CONSTRUCTION	THICKNESS	NRC	WEIGHT	COLOR
Fabric or Vinyl	Resin: square edge; "eased" edge up to 1/8" (3mm) radius; bevelled or chamfered up to 1/8" x 1/8" (3mm x 3mm). Must have reveal joint. Aluminum: square edge with 1/8" (3mm) defined joint.	Fabric: Up to 48" x 120" (1220mm x 3050mm). Vinyl: Up to 48" x 120" (1220mm x 3050mm).	Finish width must be sufficient to cover panel thickness and wrap minimum 1" (25mm) on back side. Panel consists of a 6 to 7 pcf (96 to 112 kg/m^3) inert, medium density acoustical core with a 1/16" (1.5mm) thick 16 to 20 pcf (256 to 320 kg/m3) high density integral facer. Fabric corners are fully tailored (no exposed darting). Vinyl corners are heat sealed. A 1 mil clear vapor retarder is adhered to panel back.	1-1/16" (27mm) 2-1/16" (52mm)	0.80 N/A	1.20 psf (5.86 kg/m^2) 1.52 psf (7.50 kg/m^2)	As per finish selected
Claro or Metallo	Aluminum: Coated square edge with 1/8" (3mm) defined joint.	Recommended Up to 72" x 48" (1830mm x 1220mm). Handling larger panels may result in damage to panels. Consult Decoustics for larger panel sizes.	Panel consists of a 6 to 7 pcf (96 to 112 kg/m^3) density acoustically absorptive core, with a special high acoustic performance layer laminated to face (1-1/16" (27mm) overall thickness.) designed to receive a non-bridging acoustically transparent coating. A 1 mil clear vapor retarder is adhered to panel back.	1-1/16" (27mm) 2-1/16" (52mm)	0.90 N/A	1.20 psf (5.86 kg/m^2)	Standard White CSW-100 Light Reflectance 90% Custom colors to march color chips

Note: The information provided in this Data Sheet is accurate to the best of our knowledge at the time of printing. However, we reserve the right to make changes when necessary without further notification. Suggested applications may need to be modified to conform with local building codes and conditions. We cannot accept responsibility for products that are not used, or installed, to our specifications. Please refer to our website for most current data.

Note: Only handle panels wearing clean, lightweight, white gloves during installation. Follow manufacturer's printed instructions for installation as well as field cutting of panels.

Mounting Methods

Pre-curved Cone Shape panels can be installed using the following Decoustics ceiling systems:

1. Direct Mount (progressively accessible, with defined, closed reveal or open reveal panel joints).
2. Direct To Suspended Frame/Grid (progressively accessible with defined, closed reveal or open reveal panel joints).
3. Suspended Reveal (non-accessible, with open reveal panel joints).
4. Suspended Reveal (progressively accessible, with closed reveal panel joints).
5. Suspended Accessible Reveal (upward accessible, with open reveal panel joints).
6. Ceilencio Custom (downward accessible, with defined panel joints).

Note: Field cutting of panels is possible but not recommended.

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