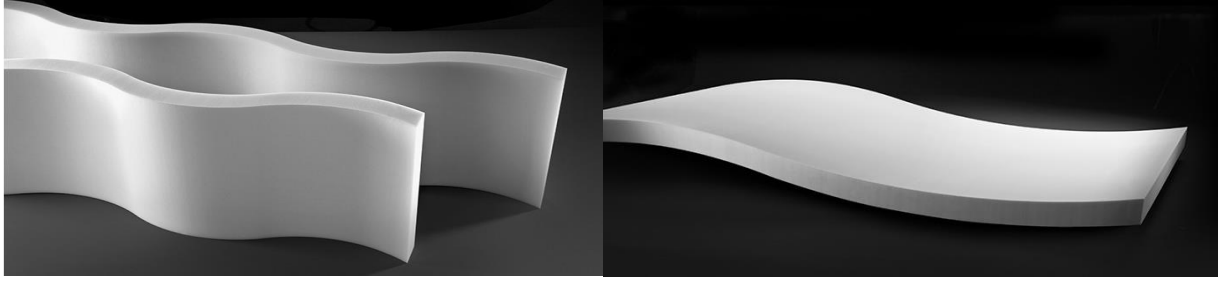


TECHLITE® ACCENT WAVE PANELS INSTALLATION INSTRUCTIONS



Installation procedures for Double Mini, Standard and Large Wave Panels may vary from manufacturer to manufacturer. For specific accessory component information, detail drawings, CAD design assistance, detailed information or other technical services, contact the manufacturer. Note: If significant changes to structure are to be made, such as mounting cables into framing members, such installation impacts appropriately land in the purview of a structural engineer or general contractor licensed in the state where installation occurs.

The following information provides general notes and installation instructions for TECHLITE ACCENT Wave Panels.

Installing wave panels using spray adhesive for ceiling/wall:

- 1) Plot foam positioning, layout, and design before beginning the mounting process
- 2) Prepare a spraying area with drop cloths/newspaper to protect your room
- 3) Ensure the mounting surface is smooth, clean, and free of dust
- 4) Gently wash surface with warm water if necessary, allowing adequate time to dry
- 5) When mounting, maintain a room temperature around 70° F (21° C) for best adhesive performance. NOTE: Do not attempt to mount wave panels with adhesive on wallpaper or textured walls and ceilings
- 6) Liberally apply adhesive to the back of the wave panels and the ceiling and/or wall where it will be mounted
- 7) Allow adequate time for the adhesive to become tacky. Tack range varies depending on the adhesive, so consult with manufacturer for product-specific tack range.
- 8) Carefully place wave panels against the adhesive-coated ceiling and/or wall and apply firm pressure
- 9) Hold wave panels in place for approximately 15 seconds to allow the adhesive to bond. Bonding time varies depending on the adhesive, so consult with manufacturer for product-specific adhesive bonding time.
- 10) Maintain a room temperature around 70°F (21°C) for as long as reasonable during curing process.

Installing wave panels using *Loctite PowerGrab* (or approved equivalent) construction adhesive for ceiling/wall:

- 1) Handle wave panels with care. Do not pick up or handle panels by the corners.
- 2) Store right side up and flat in a clean, dry area protected from the elements. Do not sit on, or stack anything on top of boxes.
- 3) Work with clean hands on a clean work surface. Wear clean cotton/canvas gloves for installation.
- 4) Overhead Installations may require additional support and cure time until adhesive sets.
- 5) Make sure both the panels and surface to which the panels are being applied are dust free and dirt free. If adhering to a metal surface, use a degreaser.
- 6) Cut end of adhesive tube at 45 degrees to produce a ¼" bead.
- 7) Using pressure, apply a ¼" bead of adhesive to the double mini wave panel, ½" on center applied at the apex of the 3 waves. Use the diagram as shown in Figure 1 below as a guide. For standard and large wave panels where is typically only one apex, please consult TECHLITE Acoustics engineering department for technical assistance for your specific project requirements.
- 8) Press wave panel into place firmly and hold for 5 seconds. Be sure to apply pressure to all glue-applied areas. If part of the panel comes off the wall or ceiling, remove panel completely, remove and reapply adhesive or use different panel.

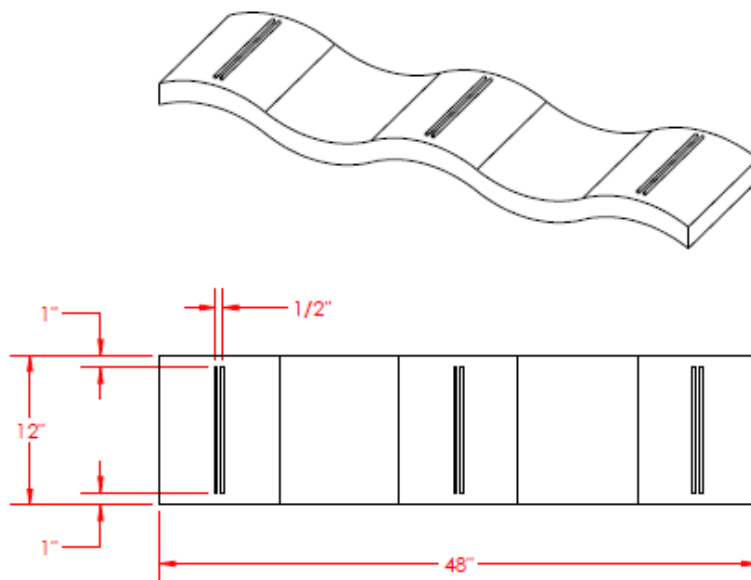


Figure 1: Double Mini Wave Panel

Installing metal corkscrew hangers in wave panels (baffles):

- 1) For vertical application, depending on the size of the wave panel, each 48" long "double mini" wave panel should be equipped with 2 2-7/8" long corkscrew hangers and each 48" long "standard" wave panel should be equipped with 3 2-7/8" long corkscrew hangers, and 4 corkscrew hangers for 96" long panels for the large waves. Maximum distance between hangers should be no greater than 30" for double mini, standard and large wave panels. Use the diagram shown in Figures 2, 3 and 4 below as a guide.

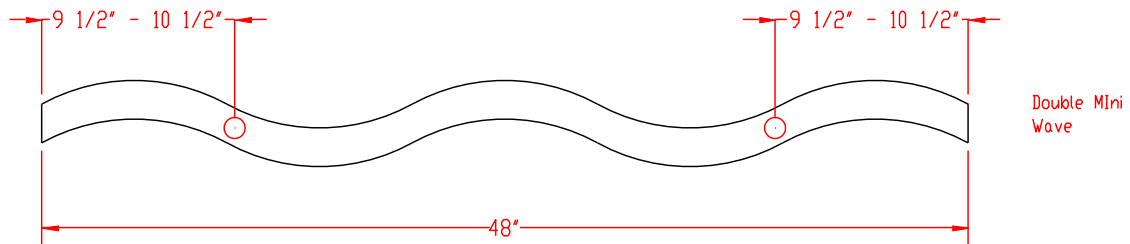


Figure 2: Double Mini Wave Panel

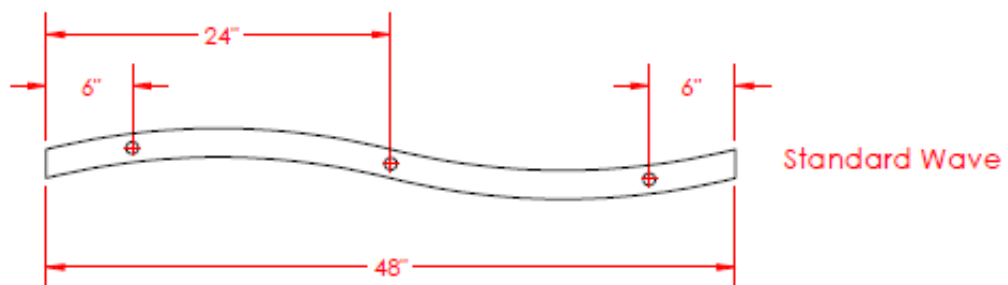


Figure 3: Standard Wave Panel

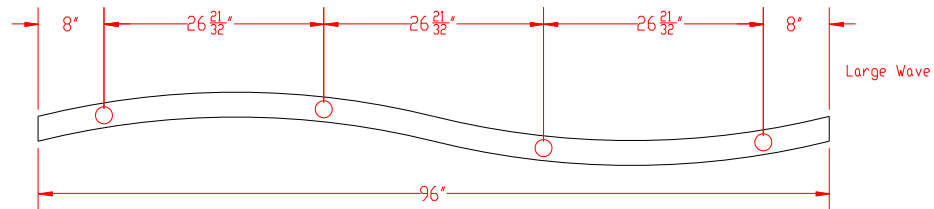


Figure 4: Large Wave Panel

- 2) For horizontal application, each double mini, standard and large wave panel should be equipped with 4 1-1/4" or 2-7/8" (depending on thickness of panel) long corkscrew hangers. Maximum distance between hangers should be no greater than 24" for double mini and standard wave panels, and 60" (max.) for large panels. Use the diagram shown in Figures 5, 6 and 7 below as a guide.

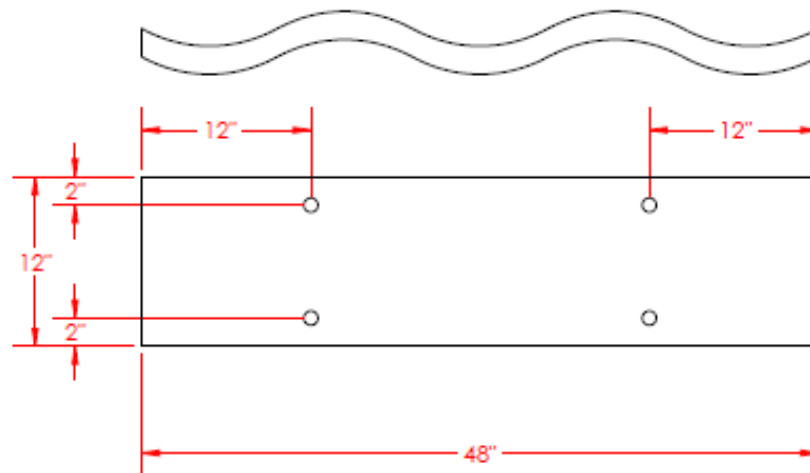


Figure 5: Double Mini Wave Panels

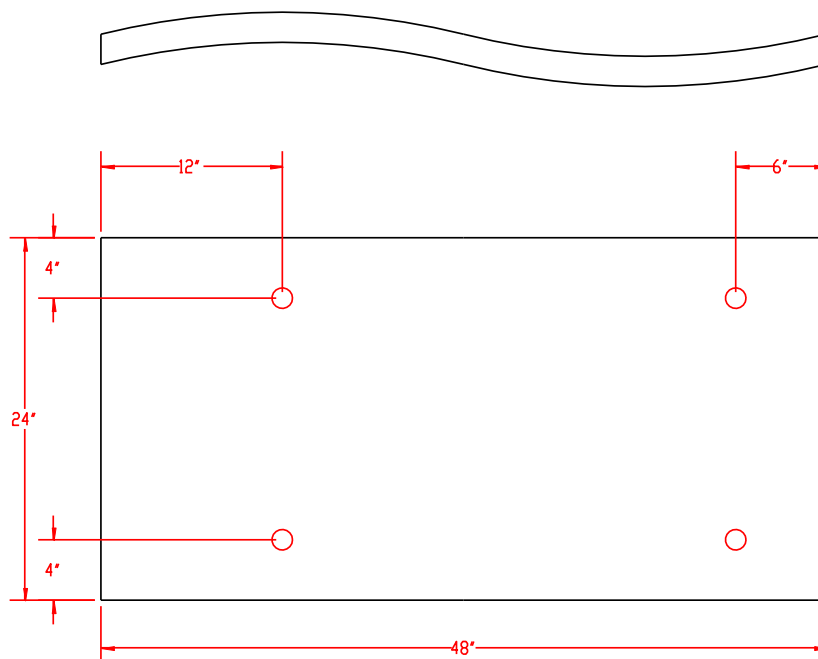


Figure 6: Standard Wave Panels

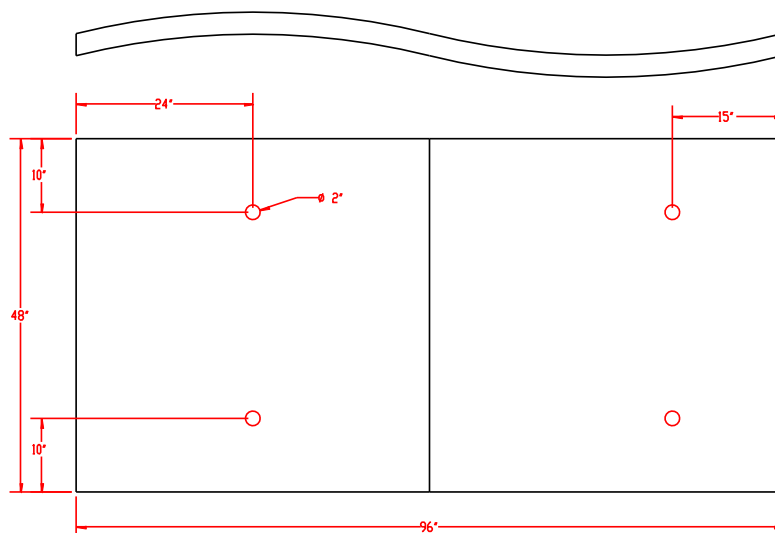


Figure 7: Large Wave Panels

- 3) Corkscrew hangers are to be installed in the field by a licensed contractor. Wire hangers/cables and cable mounts/anchors to be provided by installer.
- 4) Mark an even dispersion of suspension points on wave panel as shown in Figures 2 - 7. It is recommended to place 4 corkscrews into the rear of all wave panels, as shown.
- 5) Hold corkscrew hanger vertically and gently press hanger until the corkscrew hanger penetrates foam, turning in a clockwise motion.
- 6) Turn corkscrew hanger clockwise until the top coil in each corkscrew hanger compresses the surface of the foam by approximately 1/16".

Installing vertically suspended wave panels (baffles) with metal corkscrew hangers direct to underside of structural ceiling:

- 1) Refer to *Installing metal corkscrew hangers in wave panels (baffles)* section.
- 2) Attach the appropriate anchor to underside of structure.
- 3) Thread tie wire/cable/lightweight chain through grommet or eye hook of the corkscrew hanger.
- 4) Twist the wire/cable/lightweight chain to complete the connection. Note: Do not overtighten the wire/cable or put excessive force on grommet/eye hook to avoid panel failure. Tie wires/cables should be plumb.

Installing vertically suspended wave panels (baffles) with long metal corkscrew hangers parallel from joists and/or trusses:

- 1) Refer to *Installing metal corkscrew hangers in wave panels (baffles)* section.
- 2) Wave panels can be wire/cable tied directly to the top or bottom of joists and/or trusses. Panels attached to the top of the joists will hang beside the joist, and panels attached at the bottom will hang below the joists.
- 3) Use a minimum 1/16" wire hanger, cable or lightweight chain to suspend panels from joists or trusses.
- 4) Attach wire/cable from the structural ceiling by looping the wire/cable around ceiling joists or trusses.
- 5) Thread the tie wire/cable through the grommet or eye hook and then loop around the joists or trusses.
- 6) Twist the wire to complete connection.

Installing vertically suspended wave panels (baffles) with metal corkscrew hangers perpendicular from joists and/or trusses:

- 1) Install a tight cable support system (by others) for wave panel attachment
- 2) Secure anchors at both ends into the wall.
- 3) Use a minimum 1/16" wire, cable or lightweight chain to suspend panels from joists or trusses.
- 4) Attach the wire/cable, thread the cable above the lower bar of the joists, and use a turnbuckle to tighten the cable. For long runs of cable or wide spacing of joists or trusses, additional vertical cable support may be required.
- 5) Attach the panels to the wire/cable with tie wire. Tie wire connection should be snug to the cable to minimize panel slippage.

Installing horizontally suspended wave panels with metal corkscrew hangers direct from underside of structural ceiling:

- 1) To find the approximate distances away from the sides to install the corkscrew hangers, refer to *Installing metal corkscrew hangers in wave panels (baffles)*. Length of corkscrew dependent upon thickness of panel. Please consult with TECHLITE Acoustics Engineering Department for further technical assistance.
- 2) Attach the appropriate anchor to underside of structure.
- 3) Thread tie wire/cable/lightweight chain through grommet or eye hook of the corkscrew hanger.
- 4) Twist the wire/cable/lightweight chain to complete the connection. Note: Do not overtighten the wire/cable or put excessive force on grommet/eye hook to avoid panel failure. Tie wires/cables should be plumb.

Ceiling - Hanging vertical wave panels (baffles) using the wall-to-wall technique:

- 1) Refer to Figures 2 - 7 above for recommended corkscrew spacing on double mini, standard and large wave panels. For vertical installations, maximum distance between corkscrew hangers should be no greater than 28".
- 2) Determine the length of cable required to hang it across room.
- 3) Attach one end of the wire/cable to one wall or I-beam, where required, using a welded or bent eyebolt, and if necessary, eye turnbuckles for additional structural lateral support.
- 4) Use same attachment method for opposite wall and properly tighten.
- 5) Optional: Install center support hooks or eyes towards center of structural ceiling to counter cable sag. Amount and specific locations of center supports to be determined by structural engineer or licensed contractor.
- 6) Slip eye loop of corkscrew hanger over wire/cable. Turn eye loops perpendicular to the panels locking the cable in place. If a center ceiling support is employed, slide panels from each end of the cable towards the center.
- 7) Slide panels across the cable. For a nice, even dispersion across the wire/cable/lightweight chain span, use cable spacers for desired spacing. The spacers can be used on the ends of cables to prevent panels from knocking into objects, and between panels to clear a path for HVAC ductwork and light fixtures.

General Notes:

- 1) Wave panels can be suspended vertically or horizontally.
- 2) Wave panels come in white or light-grey, and are constructed of open-cell melamine foam.
- 3) Custom coatings to suit most color palettes available upon request.
- 4) Store wave panels out of direct UV sunlight.
- 5) Avoid hanging wave panels greater than 10 feet below the structural ceiling. Extensive wiring/cabling/chaining will cause wave panels to swing if suspended between HVAC air streams.
- 6) If installing less than 1-1/2" thick wave panels in vertical or horizontal ceiling applications, please consult with TECHLITE Acoustics Engineering Department for technical assistance as it is not recommended to go below 1-1/2" thick.
- 7) Store and protect wave panels from the elements and from damage.
- 8) Suspension hardware is not to be pre-installed.
- 9) Do not subject wave panels to critical edge lighting without first consulting TECHLITE.
- 10) If installing metal hardware in a corrosive environment such as an aquatic center, always use 316 stainless steel corkscrews and hardware.

List of accessories:

- Loctite General Purpose PowerGrab Adhesive
- Nominal 1/16" to 3/32" wire hanger, uncoated cable or lightweight chain
- Cable clamps
- 1/4" to 3/8" eyebolts (2 per cable if wall to wall mounted)
- Standard galvanized rope thimble cable protector (if required)
- Turnbuckles
- 1-1/4" 316 Stainless Steel Corkscrew Hangers
- 2-7/8" 316 Stainless Steel Corkscrew Hangers
- 3M Scotch-Grip™ 4550
- 3M Fastbond™ #49

Please consult TECHLITE Acoustics engineering department for technical assistance to suit your specific project requirements.

Note: If significant changes to structure are to be made, such as mounting cables into framing members, such installation impacts appropriately land in the purview of a structural engineer or general contractor licensed in the state where installation occurs.