Acrytec PANEL INDUSTRIES

Installation Guide:

NC 25 Insulated System (Non-Combustible Construction)

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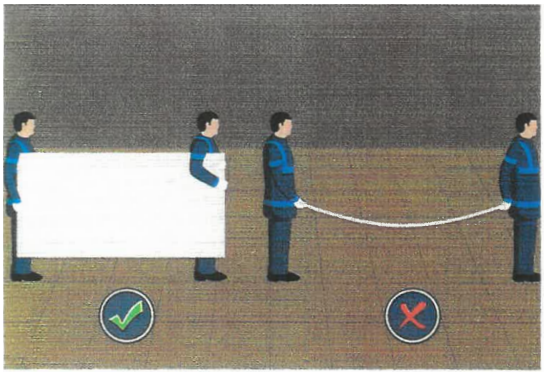
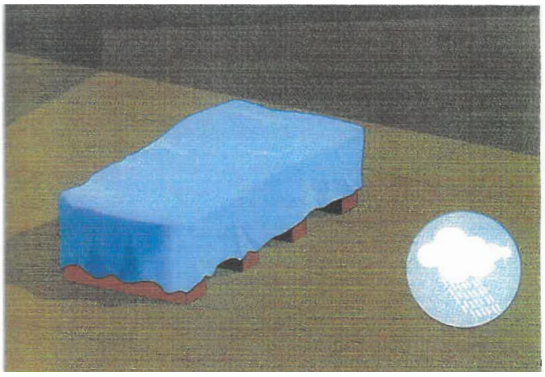
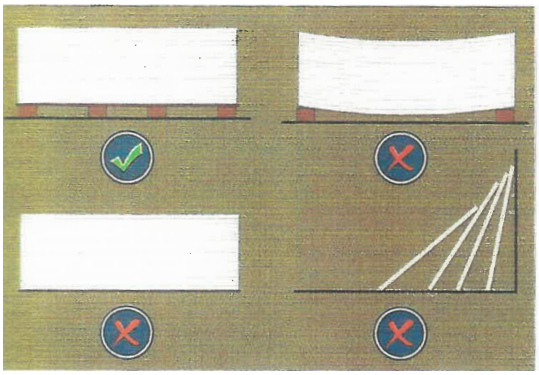
Any unique on site details that are not addressed in this installation guide must be brought to the General Contractor's attention.

Proper Storage and Handling

- Ensure panels are stacked on flat surface **(Do not stack skids)**
- Keep panels protected from elements at all times
- Carry panels in an upright position
- Do not carry panels flat from either end
- **Do not drop or hit edges of panels**
- **Do not rest panel on corners**
- **Do not allow panels to sag when lifting**
- Exercise caution when handling channels and panels by using proper protective equipment







NOTE: Use only Acrytec materials and components for installation of Acrytec Systems. Installers must be certified and trained by Acrytec Panel Industries.

Suitable Substrates

- Poured concrete
- Structural concrete block
- Wood studs with sheathing
- Structural metal studs with sheathing
- Existing substrates (Note: Substrates are to be inspected for sound structural integrity and approved by a certified project engineer)

Materials

- Moisture/vapour barrier: Not supplied by Acrytec Panel Industries
- Z girts: Galvanized 18 gauge steel, G-90 coating thickness to CAN/CSA G164-M, depth as indicated on shop drawings
- Vertical channels: Galvanized 18 gauge Acry-channels or aluminum hat channels
- Non-combustible Insulation: Type and thickness as noted on drawings
- Non-combustible Acrytec panels
- Panel to channel adhesive: One component, moisture curing, polyurethane 3M 540
- Joint Sealant: Willseal 600 pre-compressed polyurethane foam sealant
- Fasteners (for panel to vertical channels): #6 x 1-1/4” Flat Socket Self-Drilling corrosion coated stainless steel screw (if concealing of fasteners is applicable) or #10 x 1-1/4” Button Head stainless steel screw (custom powder coated)
- Fasteners (for Z girt to substrate): Engineer approved
- Fasteners (for vertical channels to Z girt): 3/16” industrial stainless steel rivets or #14 x 1-1/4” stainless steel self tappers
- Panel Concealing Filler: Matching acrylic material for countersunk and concealed screw fasteners, and site cut panel edges

Note: Concealing of fasteners is only applicable to certain finishes.

Flashing

All flashings must be installed as per Acrytec details, unless otherwise noted in shop drawings.

Moisture Barrier

Moisture and vapour barrier materials must be installed as per local building code requirements and manufacturer’s specifications.

How to Install Channels & Components

Substrate surface preparation must meet acceptable building standards and be free of any obstructions, straight and uniform.

The substrate must also be capable of handling load requirements for Acrytec systems.

1) Establish termination points and install 18 gauge galvanized Z girts horizontally every 600mm with engineer specified fasteners to every vertical stud. (If substrate is concrete or block, span fasteners no greater than 400mm apart. Use approximately 5 fasteners per Z girt.) Ensure flange against wall is always pointed upwards. Maintain a 5mm gap for expansion between all Z girts.

2) Install insulation between Z girts tightly.

3) Vertically install Acry-channels or aluminum hat channels to Z girts using 3/16” industrial stainless steel rivets or #14 x 1-1/4” stainless steel self tappers. Space channels no greater than 400mm apart. Maintain a 5mm gap for expansion between all channels and all Z girts.
   Note: Shims for levelling may be used between channels and Z girt.

4) Incorporate expansion joint details where required.

5) Vertical channels should not span between floors.

Installation of Acrytec Panels

Note: Keep finished face down when cutting panels.

- Refinish panel edges where cutting was required. Dust from cutting must be removed before the panel is installed.
- Install panel to the channels using appropriate size and type of mechanical fasteners (either #10 x 1-1/4” Button Head stainless steel screw, a 1-1/2” x 3/16” stainless steel rivet, or a #6 x 1-1/4” Flat Socket Self-Drilling corrosion coated stainless steel screw).
  Note: The #6 x 1-1/4” Flat Socket screw is only to be used when concealing of fasteners is required.
- Acrytec panels should not span between floors.
- Mechanical fasteners are to be spaced at 600mm vertically and 400mm horizontally on every stud.
- Specified adhesive must be used in conjunction with mechanical fasteners on all

Acrytec Panels.

- Install Willseal 600 pre-compressed polyurethane foam sealant in between all panels and dissimilar materials where possible.
- Pre drilling all Acrytec panels before the installation of each mechanical fastener is recommended. Remove panel dust created from drilling immediately.
- Space mechanical fasteners 20mm from panel edges and 75mm from panel corners.

Note: If concealing the fasteners is required, counter sink all fasteners to a depth of 4mm below surface.

Concealing Fasteners

Note: Concealing of fasteners is only possible on specific textured finishes.

EXTREMELY IMPORTANT:

A. Prior to concealing screw holes, ensure panel surface is flat and clean using an air compressor.
B. Mix material in container prior to use.
Note: Do not add water to the mixture. Do not let material freeze during storage.
C. Using supplied Acrytec material, fill the fastener cavity. Do not exceed the size of the screw hole diameter.
D. Remove excess material to ensure a flat surface.
E. Conceal screw heads as soon as possible to avoid colour variations. (Recommended time lapse of no more than 24 hrs).

Do not apply concealing material below 5° C for at least 24 hours in dry weather.

Sealants

Willseal 600 pre-compressed polyurethane foam sealant

- Remove adhesive backing from sealant before applying to panel edge.
- Do not stretch sealant while applying.
- Slightly compress new roll of sealant to previously applied end.

Post-Installation Precautions

Dust and debris should be removed from panels immediately after installation.