ROCKWOOL
Design No. RI/MFF 30-01
Stone Wool Insulation
CAVITYROCK, COMFORTBOARD 80, and COMFORTBOARD 110
NFPA 285
Rating: Meets Condition of Acceptance

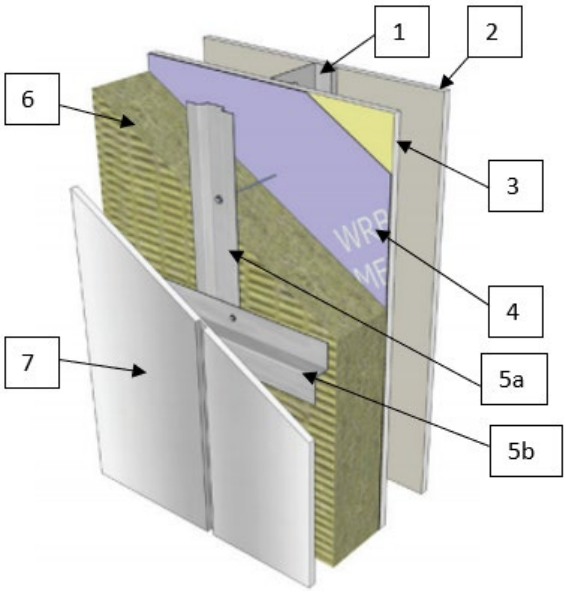

Figure 1: Construction with COMFORTBOARD 80 or COMFORTBOARD 110

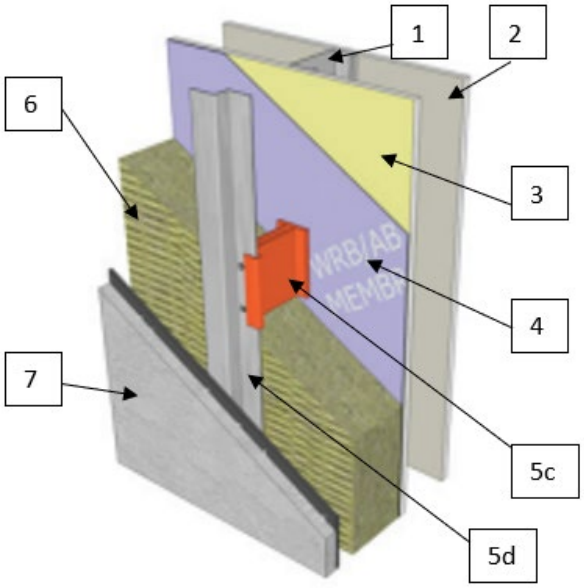

Figure 2: Construction with CAVITYROCK

1. **FRAMING/STEEL STUDS:** STEEL STUDS: Min. 3-5/8 in. depth, min. GA per Table 1, max. 16 in. on center (oc) with the Cascadia Clip® and 24 in. oc with steel hat channels with lateral bracing every 4 ft. vertically. Secure steel studs to top and bottom track using approved screws.

Table 1: Steel Framing Gauge

Exterior Cladding	Steel Framing
larson® by Alucoil® FR ACM Panels (Item 7A)	18 GA
ALPOLIC® FR Wall Panels from Mitsubishi Plastics Inc. (Item 7B)	20 GA
Non-combustible Cladding Options (Item 7C)	20 GA

2. **INTERIOR GYPSUM:** Apply one layer of 5/8 in. thick, Type X gypsum board to the interior side of the steel framing with the long dimension parallel to the steel studs. Secure using no. 6, 1-1/4 in. long, Type S screws spaced nominally 8 in. oc around the perimeter and 12 in. oc in the field.

JOINT TAPE AND COMPOUND (Not Shown) – Apply a level 2 finish of vinyl or casein, dry or premixed, joint compound applied in two coats to all exposed fastener heads and gypsum board joints. Embed min. 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum board (Item 3).

3. **EXTERIOR SHEATHING:** Install min. 1/2 in. thick DensGlass® Gold exterior sheathing, or install min. 5/8 in. USG-Tremco Securock® ExoAir® 430 panel to the exterior side of the steel framing with the long dimension perpendicular to the steel studs. For the Securock® ExoAir® 430, apply Tremco® Dymonic® 100 Polyurethane sealant to all fastener heads and joints of the panel (2 in. wide × 1/4 in. thick bead to cover the joints).

   Secure using no. 6, 1-1/4 in. long, Type S screws spaced nominally 8 in. oc around the perimeter and 12 in. oc in the field.

4. **WATER RESISTIVE BARRIER (WRB):** Install a single layer of Henry BlueskinVP™, or Blueskin® SA, or any certified WRB that meets the following requirements: ASTM E84 FSI ≤ 75 and SDI ≤ 450. WRB not required when using Securock® ExoAir® 430 panel as the exterior sheathing (Item 3).

5. **ATTACHMENT METHOD:**

   A. CASCADIA CLIP® – The Cascadia Clip® Fiberglass Thermal Spacer (5c) is manufactured with glass fiber and polyester resin with a max. depth of 8 in. The Cascadia Clip® is installed between the exterior wall cladding and structural substrates of the walls. The z-girt (5d) is clipped on to the Cascadia Clip® vertically, typically 26 in. oc. The clip is screwed into the substrate using different fastener lengths for different framing options.

   Hex-head steel fasteners, 1/4 x 14, shall be 2 in. longer than the Cascadia Clip® to puncture through the WRB and the exterior sheathing, and into the steel framing. The z-girt (18 GA: IAPMO) and the Cascadia Clip® should be installed as per manufacturer's instructions and to meet their IAPMO report (ER #410).

   In construction in which the exterior cladding is a non-combustible cladding (Item 7C) the Cascadia Clip® must be fastened per the Cascadia Clip® manufacturer's installation guide.

   ROCKWOOL insulation with thickness equal to the depth of the Cascadia Clips must be used when employing these clips.

   B. Metal (carbon steel, stainless steel, or aluminum) clips or girts are also permitted in lieu of Cascadia Clips.

6. **CERTIFIED MANUFACTURER:** ROCKWOOL

   CERTIFIED PRODUCT: Stone Wool Insulation

   CERTIFIED MODEL: CAVITYROCK, COMFORTBOARD 80 and COMFORTBOARD 110

   The ROCKWOOL stone wool insulations are described below.

   The CAVITROCK products are to be sized from 2 in. to 8 in. thickness, in single or multiple layers, to match the depth of the Cascadia Clip® (Item 5). The Cascadia Clips® are fastened to the girts and spaced accordingly. The clip is then fastened to the wall and the steel stud structure (Item 1) behind. The ROCKWOOL product is then added between the clips after all the clips have been put in place.

   CAVITYROCK with 2 in. to 8 in. thickness is also permitted for use in systems employing metal (carbon steel, stainless steel, or aluminum) clips, rails, and girts in lieu of Cascadia Clips

   Systems employing metal strapping directly over the insulation, as shown in Figure 1, must use Comfortboard 80 or Comfortboard 110 with thickness ranging from 1-1/2 in. to 8 in.

   ROCKWOOL insulation boards are installed over the exterior sheathing with either impaling pins or mechanical fasteners with min. 2 in. washers. The number of impaling pins or mechanical fasteners to be used per board are to be specified by the structural design professional responsible for the project. See ROCKWOOL's Board Insulation Attachment Guide for additional details.

7. EXTERIOR CLADDING: Use composite panels or non-combustible cladding as indicated in Items 7A through 7C.

A. LARSON® BY ALUCOIL® FR – Install the Alucoil® FR panels using the "J.W. McDougall 150 Series Route and Return Wet Seal System" or equivalent, consisting of the following elements:

i. "L" Channels: Install vertical aluminum "L" shaped channels, secured through the exterior sheathing (Item 3) into the steel framing (Item 1) around the perimeter of the assembly. Secure clip extrusion channel into steel framing (Item 1) using no. 12, 11 × 2 in. long self-drilling screws spaced max. 24 in. oc.
ii. Aluminum Composite Metal Panel: Install Alucoil® FR 4 mm or 6 mm ACM panels to "L" channels using no. 12, 11 × 3/4 in. long stainless steel fasteners spaced nominal 18 in. oc.
iii. Aluminum Extrusions: Secure aluminum composite metal panels (Item 7B) in the field assembly using aluminum extrusions attached directly to the panels, using no. 10 × 3/4 in. self-drilling hex-head plated steel fasteners.
iv. Backer Rod: Install nominal 1/2 in. diameter Tundra Foam open cell backer rod in all horizontal and vertical seams between aluminum composite panels.
v. Sealant: Install DOW 795 over the backer rod to bring the surface flush with the composite panels.

B. ALPOLIC® FR – Install the ALPOLIC® FR panel system using route and return Universe Corporation, Universe® 2000R Dry-set Wall System, or equivalent route and return system. Install in accordance with the wall system manufacturer's specifications and the following requirements:

i. Spline Angles: Angles are shop attached at corners with F.H. pop rivets.
ii. Plastic Shim: Use 1/8 in. + 1/16 in. plastic shim.
iii. Extrusion Fastener: No. 10 × 1-3/4 in. H.W.H. head, spaced 16 in. oc for the first layer of gypsum board (Item 2), and no. 10 × 2-1/2 in. H.W.H. head, 16 in. oc for the second layer of gypsum board.
iv. Aluminum Extrusion Retainer: Use 5/8 in. aluminum retainers between vertical and horizontal joints.
v. Panel Stiffeners (Not Shown): Attach aluminum stiffeners at a max. spacing of 24 in. with structural silicone sealant.

C. NON-COMBUSTIBLE CLADDING – Options including anchored masonry, stone veneer, slab-type veneer, terra cotta, fiber-cement siding can be used per the product specifications and installations set out in the applicable Building Code requirements.

8. FLOORLINE STOPPING: (Not shown) Compression fit non-combustible (per ASTM E136) nominal 4 pcf mineral or stone wool insulation in the stud cavities at the floor lines.

9. WINDOW OPENING: Frame the window header, jambs, and sill with 20 GA galvanized steel studs for framing, fastened using min. no. 6 x 1/2 in. long self-drilling screws spaced max. 16 in. oc.

- For Item 7A: Apply 5/8 in. DensGlass® Gold Exterior Sheathing over the window framing using no. 6, 1-1/4 in. long, Type S screws spaced nominally 8 in. oc. Cover the inside perimeter with 0.05 in. aluminum angle (2 in. leg and 4 in. leg), fastened with lath head self-drilling screws 16 in. oc on the inside and outside of the opening.
- For Item 7B: Apply a 20 GA steel flashing to cover the perimeter of the opening, using self-drilling screws 16 in. oc on the inside and outside of the opening.
- For Item 7C: Apply a min. 0.050 in. aluminum flashing, 20 GA steel flashing, or any approved non-combustible cladding material to cover the perimeter of the window opening.

Consult the listing report on the Directory of Building Products (https://bpdirectory.intertek.com) for the edition of the standard(s) evaluated.

Compliance of the assembly described in this Design Listing with the referenced standard relies on verification that the assembly constructed in the field is consistent with that described herein. Intertek certified products may be verified by the approved Intertek label; other products must be verified by the Authority Having Jurisdiction as meeting the specifications stated herein.