Metalwërks®
Metal Sales & Service Inc.

Your passion. Our precision.

Metalwërks® Arcwall ACM PERS

ARCWALL ACM PERS (PRESSURE EQUALIZED RAIN SCREEN) PRODUCT DESCRIPTION

For use in exterior wall cladding when the A/E desires a high performance, dry-joint, pressure equalized rain screen exterior cladding system. A smooth cladding material comprised of composite metal for insulated and/or noninsulated cladding applications over continuous masonry or stud/sheathing substrates where a suitable air/water barrier can be applied. Flexible joint designs enable the designer to articulate almost any vertical and horizontal joint rhythm or pattern.

Composite materials are available in a wide range of painted aluminum finishes and base metal options at a competitive value over other non-metal materials."

FEATURES AND BENEFITS:

- All products are engineered and manufactured in-house.
- Fully tested to meet or exceed performance values mandated by AAMA 508-07.
- System designed for almost instantaneous pressure equalization which dampens the capillary action created by negative pressure and vapor drive from exterior to interior associated with sealed systems.
- Self Alignment: Adjustable 2 piece furring allows wall substrate to be plumbed prior to panel installation to create a flat plane with minimal deviations from vertical. This design, unlike other rain screen systems, also facilitates sealing the system to the air water barrier by eliminating shims.
- Standard 5/8" wide vertical and horizontal joints are open to minimize dirt and maximize the appearance. No exposed sealants to retain dirt and create streaking.
- Internal gutters use concealed silicone gaskets to fully express a 1-3/4" joint depth. Consult Sales for alternative design options.
- Panels are secure yet free floating to accommodate thermal expansion and contraction due to the interlocking horizontal joint.
- "Edge grip" design also available for a crisper perimeter joint.
- Panel frames and stiffeners are welded during assembly for superior stiffness.

PRODUCT APPLICATIONS:

- Any vertical exterior wall surface application with continuous air/water barrier.
- Articulations: Rain Screen Wall Cladding Systems rely on gravity to drain water out of the wall cavity. All horizontal surfaces should be sealed which include copings, soffits, and sloped conditions. To minimize water penetration, all perimeter conditions to be sealed. Accents applied to face of panel that do not interrupt the air water barrier may not require sealant.Consult Sales for design options.
- Where panel systems attach to studs through exterior sheathing; CMU Block walls and Concrete substrates.
- For use on LEED projects- consult our staff for specific areas of contribution.
- Enclosures for exposed columns, beam or pilaster features can also be clad using a similar design appearance.

200 Gale Lane, Kennett Square, Pa. 19348 | P [800] 321-7816 | F [610] 444-9328 | metalwerksusa.com

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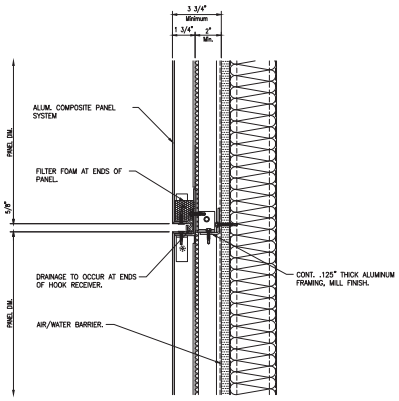
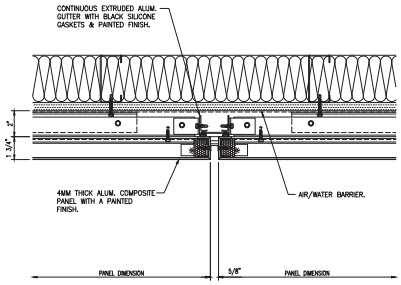
HORIZONTAL JOINT



VERTICAL JOINT



ARCWALL ACM PERS APPLICATIONS

ArcWall ACM Panel System is used as a non-insulated and/or insulated pressure equalized rain screen (PERS) wall cladding system utilizing aluminum composite material (ACM) for vertical wall surfaces over continuously sheathed or masonry substrates covered with an appropriate air/water barrier.

COMPOSITION & MATERIALS:

Arcwall ACM PERS system is a rout and return "Dry-set" Design with extruded aluminum interlocking horizontal joints.Other system accessories:

- Stiffeners: Extruded aluminum panel stiffeners are welded to the panel perimeter extrusions and structurally adhered to panel face with structural silicone of sufficient size and strength to maintain panel flatness and deflection resistance.
- Horizontal panel uses two mating continuous 6063 T6 panel retention extrusions. Interlocking profiled joint allows for thermal expansion, directs moisture horizontally to verticals and saves field labor by reducing fasteners.
- Total system depth is 3-3/4" including 2" cavity for gutters and 2-piece furring for adjustment to adjacent construction. Additional space is allowable to provide a "Continuous Insulation" layer. Consult for system depth adjustments based on preferred insulation and R value.
- Vertical gutters receive drainage from horizontal gutters and drains moisture to exterior. Gutters are sealed to back of panel with concealed extruded silicone gaskets.
- Gutters also act to provide compartmentalization where necessary to baffle air flow behind the system to fully effect rain screen principles.
- Perimeter flashing is provided to drain moisture to the exterior and effect seals to adjacent construction.
- Anchor clips are pre-punched and can be installed in coordination with and sealed to air/water barrier to minimize the impact of fastener penetrations.
- Panel face skins will be mechanically pattern cut and bend lines back-routed using CNC programmable equipment to a tolerance of +/- 0.040".

SIZES:

Panels are custom formed to specific project design requirements.

- Panel width: minimum 6" up to 60". Sizes are subject to material limitations as defined below. Consult our staff for most cost efficient panel joint layout to maximize yield and minimize waste.
- Panel length: optimal sizes up to 192" with longer sizes up to 240" subject to certain limitations. Consult for more information.

SHAPES OR PROFILES:

- Panels are typically flat but can be easily formed to custom profiles as indicated on drawings for any vertical or horizontal surface so long as the proper treatment for air/water barrier coordination can be maintained.
- Panels are strong enough to receive shop applied appliqués for additional design accents. Consult our staff for design options.

ACCESSORIES:

- Flashing: 0.020" thick to 0.063 aluminum sheet metal trim.
- Coping /Fascia options: Same material as the wall panel system or in aluminum sheet metal to match.
- Furring channels- as required for proper mounting of panels in 0.125"minimum thickness.

TECHNICAL INFORMATION:

- AAMA 508-07 "Voluntary Test Method and Specification for Pressure Equalized Rain Screen Wall Cladding Systems." Full battery of tests includes: .
- Air Infiltration - ASTM E 283-04 Passed at .12 cfm/SF (.13 allowed).Test conducted at 1.57 psf positive static air pressure difference.
- Cyclic Static Air Pressure: ASTM 1233-06 Passed at less than .08 seconds.
- Water Infiltration - ASTM E 331-00: passed at .22 SF2 (3.2 SF2 allowed).Test conducted at 15.05 psf positive static air pressure difference.
- Structural - ASTM E330 used for applying loads between tests.
- Dynamic Pressure Water resistance - AAMA 501.1-05: passed at .53/SF2 (3.2 SF2 allowed).Test conducted at 15.05 psf positive static air pressure difference.

WARRANTY INFORMATION:

- Material & Workmanship – Standard – one, two or five year options.
- Finish Integrity – Standard – 10 year up to 20 years – consult

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