TECHNICAL DATA SHEET

METALITE® 8000

Drained/Back-Ventilated
Rainscreen Aluminum Composite
Material System

PRODUCT DESCRIPTION

The Metalite 8000 system is a drained/back-ventilated (D/BV) rainscreen with a joint spline, custom fabricated and engineered to match virtually any design. Its combination of form and function makes it the perfect choice for many applications. When matched with a properly integrated air barrier, Metalite 8000 meets even the most challenging criteria.

Metalite 8000 is a labeled MCM system recognized by ICC-ES (ESR-4474 and ESL-1316). It is tested with traceable materials to the most up-to-date air, water, structural, deflection, and multi-story flame spread standards, including NFPA 285, in full compliance with the 2024 International Building Code Section 1703.5 for traceability and labelling requirements. All pertinent system test results were certified by a third-party testing organization and publicly listed in Intertek's directory of building products. Intertek, ICC-ES, and Metalite created a factory audit manual (FAM) based on procurement, storage, and fabrication methods to ensure reliable and consistent quality. ICC-ES inspects the Metalite fabrication facility semi-annually,to certify that we are buying, storing, assembling, and tracing our material components as required by the FAM and the IBC.

FEATURES & BENEFITS

Capitalizing on the innate performance of the ACM (Aluminum Composite Material), Metalite 8000 delivers a sleek, flat look that manages thermal expansion and contraction and virtually eliminates oil-canning. Proven, durable architectural coatings, including PVDF (poly vinylidene fluoride) and FEVE (fluoroethylene vinyl ether) ensure that the system will last the life of the building. In addition to design pressures provided in ESR-4474, the industry-accepted practice of delegated design allows for the MCM panel details to be specified by a licensed design professional who will design the system, including anchorage to the structural system as well as modifications required to meet specified requirements and maintain visual design concepts.

LIMITATIONS

- Common sheet dimension maximums: 62"x196"
- Nominal thickness: 4mm
- Optimal panel joint width: 1/2"
- Custom color mica and metallic samples will have draw down lines.
- Not suitable material for break-forming, roll-forming, roofing, or coping material.
- Joints should not face upward.
- Some finishes may exhibit oil-canning.
- Some material must be assembled (e.g. three-sided panels, cornice profiles)
- Should not be installed within 9" of proposed landscaping.
- Most material cores should not be exposed.
- All MCM panel sheets received for Metalite 8000 fabrication contain FR (fire retardant) core material only.
- Metallic and anodic finishes are batch sensitive and have a grain direction.
- Typical Metalite 8000 fastener connections require minimum 16-gauge steel studs installed at 16" on center. Please reach out to Dryvit Engineering engineering@dryvit.com if thinner gauges are required.
- Installation tolerance of 1/4" in 20 ft, non-cumulative, on level, plumb, location lines as indicated, 1/8" offset off adjoining faces and off alignment of matching profiles.
- Rainscreen cladding should not be considered to function as an air and water barrier. For purposes of envelope continuity, the wall assembly should include a continuous weather-resistive barrier on the exterior side of the sheathing. Installer should also ensure fasteners installed through the AWB are properly sealed after installation, if required.

WARRANTY

A repair or replacement warranty is available on all Dryvit products. Visit https://www.tremcosealants.com/warranties/ for details.

TYPICAL PHYSICAL PROPERTIES

SYSTEM PROPERTIES	REFERENCE DOCUMENT	TYPICAL RESULTS
System Depth	Metalite 8000 Spec (DS1009)	1 ½" + min. 1" Z-girts
Joint Width	Metalite 8000 Spec (DS1009)	½" (nominal)
System Weight	Metalite 8000 Spec (DS1009)	2.29 lbs/ft²
Aluminum Extrusion Alloy	Metalite 8000 Spec (DS1009)	6063 T6
Minimum Structural Substrates	Metalite 8000 Spec (DS1009)	16 ga. min. Steel Studs
Fasteners	Metalite 8000 Spec (DS1009)	#12-14 Dril-Flex
Air Infiltration @ 6.24 psf	ASTM E283[A]	<0.01 cfm/ft²
Water Resistance Test Pressure	ASTM E331[A]	15.00 psf
Structural Design Load	ASTM E330	+23 psf, -24 psf[B]
D/B-V Rainscreen Classification	AAMA 509	W1, V2
Fire Testing – Buildings >40ft	NFPA 285 (pass or fail)	Passed[C]
SHEET PROPERTIES	**REFERENCE DOCUMENT**	**TYPICAL RESULTS[D]**
Thickness	Metalite 8000 Spec (DS1009)	4 mm
Weight	Metalite 8000 Spec (DS1009)	1.56 lbs/ft²
Peel Strength	ASTM D1781	22.5 minimum in. x lbs./in.
Coefficient of Expansion	ASTM D696	1.31×10^{-5} in./in./°F
Tensile Yield Strength	ASTM E8	6230 psi
Tensile Strength	ASTM E8	6960 psi
Elongation	ASTM E8	5%
Flame Spread	ASTM E84	10
Smoke Development	ASTM E84	15
Flash Point	ASTM D1929	784°F
Self-Ignition Temperature	ASTM D1929	783°F
Fire Testing – 1 hour	ASTM E119	Passed[E]
Fire Testing – 2 hour	ASTM E119	Passed[E]

[A]ASTM E283 and E331 testing were completed using a Tremco-supplied water-resistive barrier.

[B]Possible design pressures are not limited by these values, as the industry-accepted delegated design process allows for unique engineering for projects that require higher design pressures than those considered during testing.

[C]Please see page 3 of this data sheet for NFPA 285 tested wall assembly details.

[D]All sheet properties are based on the most conservative values available from 4mm MCM FR panel manufacturers approved for Metalite 8000 fabrication: Alpolic /fr, Alucobond Plus, Reynobond FR, and Alfrex FR.

[E]Wall assembly specific and only applicable for Alpolic/fr and Alfrex FR MCM panels. Installation of Metalite 8000 MCM Wall Panel System assembly onto a fire-resistance-rated exterior wall is permitted when the assembly attachments do not penetrate through the entire exterior wall assembly. When this condition is met, ASTM E119 testing with the Metalite 8000 system is not required.

All testing was conducted on a vertical lab specimen; final system applications are the responsibility of the design team.

NFPA 285 COMPLIANT TESTED WALL ASSEMBLIES

Two wall assemblies installed with the Metalite 8000 system have been tested and have passed according to NFPA 285-19. The wall components making up the tested wall assemblies are shown below.

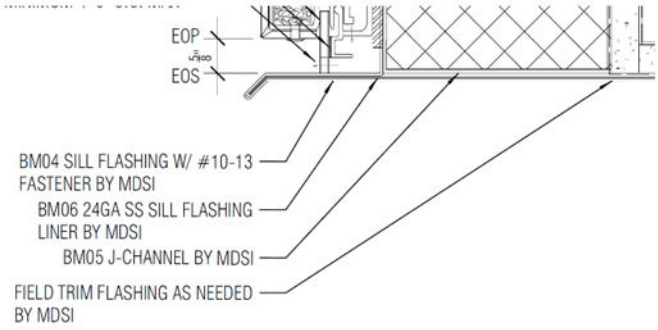
WALL COMPONENT	TEST ASSEMBLY 1	TEST ASSEMBLY 2
Interior Sheathing	5/8" type X	5/8" type X
Stud	20 GA. (min.) 3 5/8" studs @ 24" o.c.	16 GA. 2x6 steel studs @ 16" o.c.
Cavity Insulation	None, firestop not reported	None, firestop 4 pcf mineral wool full stud depth
Exterior Sheathing	1/2" (min.) DensGlass	5/8" type X
WRB	Tremco ExoAir 130	None
Exterior Insulation	3 1/2" Hunter Xci-Foil (Class A) Friction fit between horizontal girts	2 " Rockwool CavityRock over 1 1/4" Rmax ECOMAXci Attached with vertical Z girts
Exterior WRB	None	None
Gap	1/2" See Note 1	1 1/2"
Exterior Cladding	4 mm Larson Alucoil FR ACM Attached with Metalite 8000 System	4 mm Alpolic FR Core ACM Attached with Metalite 8000 System

NFPA 285 COMPLIANT COMPONENTS QUALIFIED THROUGH ENGINEERING ANALYSIS AND FURTHER TESTING

In addition to the two tested wall assemblies, an engineering judgment was performed to evaluate NFPA 285 compliance for additional wall components not found within the test wall assemblies. These additional components are described below.

WALL COMPONENT	COMPONENT OPTIONS
Base Wall Use either A, B, or C	A. Cast Concrete Walls B. CMU Concrete Walls C. 20 GA. (min.) 3-5/8" (min.) steel studs spaced at 24" o.c. (max.) over 5/8" type X Gypsum Wallboard interior
Firestopping at Floorlines	Any approved 4", 4 pcf minimum mineral wool safing/firestop insulation in each stud cavity at the floor line. Safing thickness must match the stud cavity depth.
Cavity Insulation Use any item A-D	A. None B. Any noncombustible insulation per ASTM E136 C. Any mineral fiber (faced or unfaced) D. Any fiberglass batt (faced or unfaced)
Exterior Sheathing	1/2" or thicker exterior gypsum sheathing – only for Base Wall 3
WRB over Base Wall Surface Use any item A-E	A. ExoAir 130 B. ExoAir 230 C. ExoAir 110AT D. ExoAir 210AT E. Tremco/USG Securock ExoAir 430 System – see note below Securock ExoAir 430 replaces the exterior sheathings in the NFPA Test Assembly table above. When this item is used, do not use exterior sheathings listed in the table above or WRBs on the base wall surface in this table. For WRB's other than those listed above, please contact Dryvit Engineering engineering@dryvit.com for further assistance.

WALL COMPONENT	COMPONENT OPTIONS
Exterior Insulation Use any item A-H Note - Each ACM brand must use specific insulation.	A. Hunter Polyiso (only with 4mm 3A Composites Alucobond Plus or 4mm Larson Alucoil FR) • 4" thick (max.) Xci Foil (Class A) or Xci-286 • 3-1/2" thick (max.) Xci-CG or CG-Class A • 3-1/2" thick (max.) Xci-Foil • 4-1/4" (max.) Xci-Ply or Xci-Ply (Class A) (3-1/2" foam (max.), 3/4" FR Plywood (max.)) • 4" thick (max.) Xci Foil (Class A) PLUS B. Carlisle Polyiso (only with 4mm 3A Composites Alucobond Plus or 4mm Larson Alucoil FR) • 4" thick (max.) R2+SHEATHE • 3-1/2" thick (max.) R2+MATTE or R2+MATTE (Class A) • 3-1/2" thick (max.) R2+Silver • 4-1/4" (max.) R2+Base or R2+Base (Class A) (3-1/4" foam (max.), 3/4" FR Playwood (max.)) C. 2" Rockwool CavityRock (min.) over 1-1/4" Rmax ECOMAXci (max.) – with any ACM listed below in cladding section D. 2" Rockwool CavityRock (min.) – with any ACM listed below in cladding section E. Any noncombustible mineral wool 1" thick (min.) – with any ACM listed below in cladding section F. KoolTherm K 15 Insulation (1-3") only with 4mm Alfrex FR ACM G. Thermax Insulation (1-3") only with 4 mm Alfrex FR ACM H. Atlas Polyiso Insulation (only with 4 mm Alpolic/fr or 4mm Reynobond FR) • 4" (max.) EnergyShield Pro (or Pro2) • 4" (max.) Rboard Pro (or EnergyShield CGF Pro) • 4 3/4" (max.) EnergyShield Ply Pro (4" EnergyShield CGF Pro w/ 5/8" or 3/4" FRT Plywwod) • 4" (max.) EnergyShield XR
Cladding Attachment Use any items A, B, or C as substrate for item D	A. Armatherm Z Girts (Horizontal) B. Metallic Z Girts C. SMARTci Green Girts (Horizontal) D. Tremco Metalite 8000 System
Exterior Cladding Use any item A-E Maximum air gap: 1-1/2" Note - Each ACM brand must use specific insulation.	A. 4 mm Larson Alucoil – for use with Hunter, Carlisle, mineral wool, or mineral wool over RMax B. 4 mm Alpolic FR Core – for use with Atlas insulation, mineral wool, or mineral wool over Rmax C. 4 mm 3A Composites Alucobond Plus – with Hunter, Carlisle, KoolTherm, mineral wool, or mineral wool over Rmax D. 4 mm Reynobond FR – with mineral wool or atlas or mineral wool over Rmax E. 4 mm Alfrex FR (with Thermax or mineral wool insulation) Armatherm Z Girts may be used horizontally as a Tremco Metalite 8000 System substrate. SMARTci Green Girts may be used horizontally as a Tremco Metalite 8000 System substrate.

WALL COMPONENT	COMPONENT OPTIONS
Window Flashing	For mineral wool or mineral wool over Rmax • 0.040" Aluminum (min.) For Hunter Insulation • Tested Opening – 2 layers 5/8" gypsum, with 18 GA. Steel flashing at the header and 1 layer 5/8" gypsum and 18 GA. Galv Steel Flashing at jambs and sill. • 2" mineral wool 4 pcf density For Carlisle Insulation • Tested Opening – 2 layers 5/8" gypsum, with 18 GA. steel flashing at the header and 1 layer 5/8" gypsum and 18 GA. Galv Steel Flashing at jambs and sill. • 2" mineral wool 4 pcf density • 1-1/2" thick FRT wood buck, two layers of 3/4" FRT plywood For Atlas Insulation • Header 24 GA. Steel w/ 0.040" aluminum surrounding steel (see image below)  For KoolTherm Insulation • From reference, protective materials are not required to be installed around wall openings (windows, doors, etc.), header, jambs, or sill (this assumes 0.040" alum. was used). As an option, flash window, door, and other exterior penetrations with limited amounts of asphalt, silicone, acrylic, or butyl-based flashing tapes. Flashing materials used in wall openings may extend up to a maximum of 4" onto the exterior face of the building For Thermax Insulation • 0.040" Aluminum (min.)

Please refer to our website at www.dryvit.com for the most up-to-date Product Data Sheets.

NOTE: All Dryvit Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

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