

Equivalency Evaluation Report

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Product Manufacturer

Southern Aluminum Finishing Company
8370 Hwy 78
Villa Rica, GA 30180

Product Name, Model and/or Description

SAF METAL FABRICATORS
COMPOSITE WALL PANEL SYSTEM

Code: Current Edition of the Florida Building Code including the 8th Edition (2023) Florida Building Code

Compliance Method: Product Approval Rule 61G20-3.015(4)(d) – Equivalency of Standards

Product Name, Model and/or Designation: Products covered by this evaluation include the following.

- Southern Aluminum Finishing Company, SAF Metal Fabricators – Composite Wall Panel System

Product Testing, Materials and Certification:

- Performance Testing to TAS 201, TAS 202 and TAS 203:
 - Intertek/ATI Inc. Test Report No. D9802.01-401-18 and associated laboratory drawings, dated 12/3/14, signed and sealed by Shawn Collins, PE on 12/3/14. Performance testing to TAS 201, TAS 202 and TAS 203 using 5/8" Exterior Grade Plywood on 18 GA. Steel Stud. Multiple Aluminum Composite Metal (ACM) panels employed in tested.
- Materials:
 - Aluminum Composite Metal (ACM) panels – see Panel Engineering Properties table on page 3 for approved ACM panel materials. ACM face sheet comprised of 0.02" Aluminum 3105 (strain hardened) alloy.
 - Aluminum extrusions (6063-T5).

Product Installation Instructions:

- SAF/PTC PDG Drawing No. SAF0001, signed and sealed by Robert. J. Amoruso on dated 12/19/14, *Southern Aluminum Finishing Company, SAF Metal Fabricators – Composite Wall Panel System.*

Equivalency Evaluation:

PERFORMANCE TESTING

Performance testing was conducted to TAS 201, TAS 202 and TAS 203 (Intertek/ATI Inc. Test Report No. D9802.01-401-18 and associated laboratory drawings, dated 12/3/14). Based upon my review of the test reports, test methods and results as well as the standards used in testing and those currently required in the Florida Building Code and HVHZ Testing Protocols, the following is concluded.

- The HVHZ testing requirements in the 8th Edition (2023) Florida Building Code – Testing Protocols TAS 201, TAS 202 and TAS 203 have been met.

MATERIALS TESTING

Materials testing was conducted to the standards and where recorded, revision levels shown on the following table. The standards currently listed in the 8th Edition (2023) FBC/FRC vs. those used in testing follow.



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MATERIALS TESTING			8th Edition (2023) Code		ACM Panel Testing
Organization	Document	Test	FBC	FRC	
ASTM	D635	Rate of Burning	14	n/a	06
	D1929	Self-Ignition Temp	16	n/a	96 (2001) e01
	D638	Tensile Strength and Tensile Yield Strength	03	03	03
	E8	Tensile Strength	n/a	n/a	NR
	C297	Bond Integrity - Vertical Peel	n/a	n/a	NR
	D1781	Bond Integrity - Drum Peel	n/a	n/a	NR
	C273	Bond Integrity - Flatwise Shear	n/a	n/a	NR
	D1002	Bond Integrity - Flatwise Shear	n/a	n/a	NR
	E84	Flame Spread Index & Smoke Density Index	18b	18b	07

NR – Not Recorded

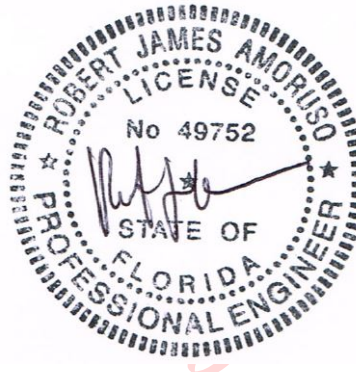
n/a – Not listed in 8th Edition (2023) FBC or FRC. Not a required test.

- The material testing requirements of the 8th Edition (2023) FBC and FRC have been reviewed against those used for the approved product.
- Review of ASTM D635-06 vs.14 reveals no changes that affect the previously derived results.
- Review of ASTM D1929-96(2001)e01 vs.16 reveals no changes that affect the previously derived results.
- ASTM D638-03 used in testing is included in the current edition of the FBC.
- Review of ASTM E84-07 vs. 18b reveals no changes that affect the previously derived results.
- Therefore, the requirements of the current edition of the Florida Building Code / Florida Residential Code has been met.

Certificate of Independence per Product Approval Rule 61G20-3.009

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report.

PTC Product Design Group, LLC and Robert J. Amoruso, P.E. do not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.



Digitally signed
by Robert J
Amoruso
Date: 2023.10.06
10:20:15 -04'00'

Evaluated By:
Robert J. Amoruso, P.E.
FL P.E. License Number 49752



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ACM PANEL ENGINEERING PROPERTIES								
Property	ASTM	Testing Standard	Manufacturer Testing Data					
			Mitsubishi Plastics Composites America, Inc.		3A Composites USA		Reynobond	
			ALPOLIC/PE (4mm)	ALPOLIC/FR (4mm)	ALUCOBOND PE (4mm)	ALUCOBOND PLUS (FR Core) (4mm)	RB160PE-4mm	RB160FR-4mm
Strength Properties (See Note 1)	E8 D638 - 03	Tensile Strength (psi)	6913 psi (ASTM E8)	7126 psi (ASTM E8)	6180 psi (ASTM D638)	6480 psi (ASTM D638)	6405 psi	6367 psi
	E8 D638 - 03	Tensile Yield Strength (psi)	6429 psi (ASTM E8)	6344 psi (ASTM E8)	6180 psi (ASTM D638)	5040 psi (ASTM D638)	6405 psi	6367 psi
	C297	Bond Integrity - Vertical Peel	1806 psi	427 psi	1625 psi	1160 psi	1371 psi	961 psi
	D1781	Bond Integrity - Drum Peel	33.6 in-lb/in	27.6 in-lb/in	177 N mm/mm	123 N mm/mm	40 in-lb/in	22.5 in-lb/in
	C273	Bond Integrity - Flatwise Shear	1225 psi	949 psi	920 psi	2180 psi	1221 psi (ASTM D1002)	928 (ASTM D1002)
Material Properties (See Note 2)	D1929 - 96 (2001) e01	Self-Ignition Temp > 650 deg. F	752°F	837°F	716°F	783°F	740°F	740°F
	E84 - 07	Flame Spread Index < 75	0	0	5	10	<25	<25
	E84 - 07	Smoke Density Index < 450	0	10	0	5	<450	<450
	D635 - 06	Rate of Burning, Class CC1 or CC2	CC1	CC1	CC1	CC1	CC1	CC1
Other	Thickness (in)		0.157	0.157	0.157	0.157	0.157	0.157
	Weight (lb/ft²)		1.12	1.56	1.12	1.56	1.12	1.53
Notes: 1) Strength Property testing, where applicable by ASTM D638, have been evaluated in accordance with the FBC using ASTM standards contained in the FBC and are therefore compliant. Plastic core material is covered by an Aluminum Composite and not exposed to exterior influences. 2) Plastics Material Properties have been evaluated in accordance with the FBC using ASTM standards contained in the FBC and are therefore compliant.								

