

Product Evaluation Report

Rule 61G20-3 F.A.C. | Report No. 2600-PER, Rev. 1 | Project No. 420-1004 | 3/22/21 | Page 1 of 3

Product Manufacturer

3A Composites USA Inc.
208 West 5th Street
Benton, KY 42025

Product Name, Model and/or Description

3A Composites
Aluminum Composite Wall Panel System

Code: Current Edition of the Florida Building Code including the 7th Edition (2020) Florida Building Code

Compliance Method: 61G20-3.005(1)(d) – Product Evaluation Report by a Licensed Professional Engineer

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

- 3A Composites, Aluminum 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 testing.
- 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:

- PTC PDG Drawing No. 3AC0001, original issue, dated 6/10/19, signed and sealed by Robert. J. Amoruso, 3A Composites USA Inc. – *Aluminum Composite Wall Panel System*.

Engineering Analysis & Evaluation: The following evaluations, engineering and/or rational analysis/calculations have been performed.

- Wall Panel Extrusion Supports to 18 GA Fty = 50 ksi Steel Stud anchorage has been verified by calculation (PTC PDG Calc. No. 2600-CALC) prepared, signed and sealed by Robert J. Amoruso, P.E. in accordance with the current edition of the Florida Building Code.
- PTC Report No. 2600-EER, Testing Equivalency Evaluation, signed and sealed by Robert. J. Amoruso, dated 3/22/21.

Limitations & Conditions of Use:

- This product has been evaluated for use inside the HVHZ (High Velocity Hurricane Zone).
- This product is impact resistant.
- Refer to Product Installation Instructions noted above for:
 - Maximum allowable wind loads at related maximum allowable size(s).
 - Overall dimensions and material/grade of main product components, accessories, etc.
 - Illustrated diagrams of the attachment of the product to substrate structure of 18 GA. steel studs of 50 ksi yield strength.
 - Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.



Product Evaluation Report

Rule 61G20-3 F.A.C. | Report No. 2600-PER, Rev. 1 | Project No. 420-1004 | 3/22/21 | Page 2 of 3

- Site wind pressures shall be determined by a licensed professional engineer in accordance with the current edition of the Florida Building Code (and/or ASCE 7 as referenced in the current edition of the Florida Building Code) for components and cladding based on allowable stress design.
- Site conditions not covered in this product evaluation document are subject to additional engineering analysis by a licensed professional engineer or registered architect as required by the authority having jurisdiction.
- Adequacy of the existing structural substrates as a main wind force resisting system capable of withstanding and transferring applied product loads to the foundation is the responsibility of the licensed professional engineer or registered architect acting as the design professional of record for the project of installation.

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.

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



Product Evaluation Report

ACM PANEL ENGINEERING PROPERTIES			
Property	ASTM	Testing Standard	Manufacturer Testing Data
			3A Composites USA
			ALUCOBOND PLUS (FR Core) (4mm)
Strength Properties (See Note 1)	E8 D638 - 03	Tensile Strength (psi)	6480 psi (ASTM D638)
	E8 D638 - 03	Tensile Yield Strength (psi)	5040 psi (ASTM D638)
	C297	Bond Integrity - Vertical Peel	1160 psi
	D1781	Bond Integrity - Drum Peel	123 N mm/mm
	C273	Bond Integrity - Flatwise Shear	2180 psi
Material Properties (See Note 2)	D1929 - 96 (2001) e01	Self-Ignition Temp > 650 deg. F	783°F
	E84 - 07	Flame Spread Index < 75	10
	E84 - 07	Smoke Density Index < 450	5
	D635 - 06	Rate of Burning, Class CC1 or CC2	CC1
Other	Thickness (in)		0.157
	Weight (lb/ft ²)		1.56
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.			

