

**NEMO EVALUATION REPORT****FT Synthetics, Inc.**26977 56th Avenue

Langley, BC V4W 3Y2, Canada

(604) 594-3439**SUBJECT: FT Block-Aide®**

SCOPE:	This Evaluation Report is issued under F.A.C. Rule 61G20-3 and the applicable rules and regulations governing Product Approval of construction materials in the State of Florida. NEMO Evaluations has evaluated the product described herein for compliance with the Code sections noted herein . This Evaluation Report consists of pages 1 through 6.
CODE:	2020 Florida Building Code, 7 th Edition
JURISDICTION:	Non-HVHZ
NEMO CATEGORY:	Barrier
FBC CATEGORY:	Roofing
FBC SUB-CATEGORY:	Roofing Accessories that are an Integral Part of the Roofing System
CSI DIVISION:	07 00 00 Thermal and Moisture Protection 07 26 00 Vapor Retarders
METHOD:	Method 2, Option A – Non-Codified Material, Evaluation by Evaluation Entity
COMPLIANCE STATEMENT:	FT Block-Aide® , as produced by FT Synthetics, Inc. , has demonstrated compliance with the Code sections noted herein through testing in accordance with the referenced Standards, rational analysis and an ongoing quality assurance program. Compliance is subject to the Installation Requirements and Limitations of Use set forth herein.
QUALITY ASSURANCE:	Evidence of current quality assurance shall be listing and labeling in accordance with the requirements of NEMO cert .
CONTINUED COMPLIANCE:	This Evaluation Report is valid until such time the named product(s) change, the referenced Quality Assurance changes, or the evaluated Code provisions change. NEMO Evaluations requires, at minimum, a complete review of this Evaluation Report with each 3-year Code Cycle.
BUILDING PERMIT REQUIREMENTS:	As required by the Building Official or Authority Having Jurisdiction to evaluate the installation of this product.
ADVERTISEMENT:	The Florida Product Approval Number (FL#) preceded by the words “NEMO Evaluated” may be displayed in advertising literature. If any portion of the Evaluation Report is displayed, it shall be displayed in its entirety.
CERTIFICATION OF INDEPENDENCE:	✓ NEMO ETC, LLC does not have, nor does it intend to acquire or will it acquire, a financial interest in any company manufacturing or distributing products it evaluates. ✓ NEMO ETC, LLC is not owned, operated or controlled by any company manufacturing or distributing products it evaluates. ✓ This is a building code evaluation. NEMO ETC, LLC is not, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance.



1. CODES, PROPERTIES AND STANDARDS:

Code	Section	Property	Standard	Year
2020 Florida Building Code, 7 th Edition	1504.3.1	Wind resistance	FM 4474	2011

2. PRODUCTS:

TABLE 1A: EVALUATED MEMBRANES ¹			
TRADE NAME	NOMINAL DIMENSIONS	DESCRIPTION	MANUFACTURING LOCATION
FT Block-Aide®	31-mil thick x 45-inch wide x 134-ft long roll	Vapor barrier membrane that combines a tri-laminate, low density polyethylene facer with a butyl rubber adhesive for use in commercial roof systems	Langley, BC Canada
TABLE 1B: TYPICAL NOMINAL PROPERTIES			
PROPERTY	STANDARD	RESULT	
Tensile strength, lbf/in.	ASTM D5147	MD: 86 XMD: 88	
Elongation, %	ASTM D5147	MD: 32 XMD: 32	
Tear strength, lbf	ASTM D4073	MD: 131 XMD: 124	
Tearing resistance, lbf	ASTM D5601	MD: 17 XMD: 18	
Peel resistance, lbf/inch	ASTM D903	plywood: 13 galvanized steel: 18	
Lap adhesion, lbf/inch	ASTM D1876	20.1	
Nail sealability	ASTM D1970	Pass - no leakage	
Water vapor permeance, perms	ASTM E96(B)	0.03	
Air leakage rate at 75 Pa, L/s-m ²	ASTM E2178	0.02	
Low temperature flexibility, °F	ASTM D5147	Pass -40°F	
Static puncture resistance, lbf	ASTM D5602	48	

¹ Certified by ISO/IEC 17065 Certification Entity [NEMO/cert.](http://www.nemoetc.com) for physical properties.

3. INSTALLATION:

FT Block-Aide® shall be installed in accordance with **FT Synthetics** published installation instructions, subject to the [Limitations of Use](#) noted herein.

4. LIMITATIONS OF USE:

- 4.1 This is a building code evaluation. NEMO ETC, LLC is not, in any way, the Designer of Record for any project on which this Evaluation Report, or previous versions thereof, is/was used for permitting or design guidance. NEMO Evaluation Reports are not to be construed as representing any attributes not specifically listed, nor are NEMO Evaluation Reports to be construed as an endorsement of the subject of the report or a recommendation for its use. There is no warranty by NEMO ETC, LLC, express or implied, as to any finding or other matter in this report, or as to any product covered by the report.
- 4.2 This Evaluation Report is not for use in FBC High Velocity Hurricane Zone jurisdictions, as defined in **FBC 202** (i.e., Broward and Miami-Dade Counties).
- 4.3 This Evaluation Report pertains to above-deck roof components. Roof decks and structural members shall be in accordance with FBC requirements to the satisfaction of the Authority Having Jurisdiction.
- 4.4 This Evaluation Report does not include evaluation of fire classification. Refer to **FBC 1505** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 4.5 This Evaluation Report does not include evaluation of roof edge termination. Refer to **FBC 1504.5** for requirements and limitations regarding edge securement for low-slope roofs.



- 4.6 Refer to **FBC 1511** for requirements and limitations regarding recover installations.
- 4.6.1 For mechanically attached components over existing roof decks, fasteners shall be tested in the existing deck for withdrawal resistance. A qualified design professional shall review the data for comparison to the minimum requirements for the system. Testing shall be in accordance with [ANSI/SPRI FX-1](#) or [Testing Application Standard TAS 105](#).
- 4.6.2 For bonded vapor barrier membrane over existing substrates in a re-roof (tear off) installation, the existing deck shall be examined for compatibility with the vapor barrier to be installed. If any surface conditions exist that bring sub-assembly system performance into question, field uplift testing in accordance with [ANSI/SPRI IA-1](#), [ASTM E907](#), [FM Loss Prevention Data Sheet 1-52](#) or [Testing Application Standard TAS 124](#) shall be conducted on mock-ups of the proposed new roof assembly.
- 4.7 Wind Load Resistance:
- 4.7.1 Refer to [Section 4.13](#) for a tabulated summary of assembly listings and maximum allowable design pressures.
- 4.7.2 “MDP” = Maximum Design Pressure is the result of testing for wind load resistance based on allowable wind loads, and reflects the ultimate passing pressure divided by 2 (the 2 to 1 margin of safety per **FBC 1504.9** has already been applied). Refer to **FBC 1609** for determination of design wind loads.
- 4.7.3 The performance data herein pertains to sub-assembly interfaces involving **FT Block-Aide®** as a vapor barrier. If a roof system’s Product Approval documentation does not specifically include **FT Block-Aide®**, the sub-assembly data herein is acceptable for comparison with the MDP limitation of the proposed roof system. The “Base Insulation Layer” for the selected sub-assembly shall match that referenced in the Roof System Product Approval documentation as the substrate to which the next subsequent component is to be installed. The lesser of the MDP listed herein vs. that from the Roof System Product Approval documentation applies.
- 4.7.4 For mechanically attached components or partially-bonded insulation, the maximum design pressure for the selected assembly shall meet or exceed at least the Zone 1 PRIME design pressure determined in accordance with **FBC Chapter 16**. Elevated pressure zones shall employ an attachment density designed by a qualified design professional to resist the elevated pressure criteria. Commonly used methods are [ANSI/SPRI WD1](#), [FM Loss Prevention Data Sheet 1-29](#), [Roofing Application Standard RAS 117](#) and [Roofing Application Standard RAS 137](#). Assemblies marked with an asterisk* carry the limitations set forth in **Section 2.2.10.1** of [FM Loss Prevention Data Sheet 1-29](#) for Zone 2/3 enhancements.
- 4.7.5 For assemblies with all components fully bonded in place, the maximum design pressure for the selected assembly shall meet or exceed critical design pressure determined in accordance with **FBC Chapter 16**. No rational analysis is permitted for these systems.
- 4.8 Fasteners:
- 4.8.1 Unless otherwise noted, fasteners and stress plates shall be as follows. Fastener shall be of sufficient length for the following engagements:

TABLE 2: FASTENER/PLATE OPTIONS				
DECK TYPE	BY	FBC FILE (4.12)	PARTS	MINIMUM ENGAGEMENT
Steel	Altenloh, Brinck and Co. U.S., Inc.	FL4500	Trufast #12 DP, Trufast #14 HD or Trufast #15 EHD with Trufast 3” Metal Insulation Plate	Minimum ¾-inch steel penetration and engage the top flute of the steel deck
	OMG, Inc.	FL699	OMG #12 Standard Roofgrip, OMG #14 Heavy Duty or OMG XHD with OMG 3 in. Galvalume Steel Plate, OMG 3 in. Ribbed Galvalume Plate (Flat), OMG 3 in. Round Metal Plate or OMG AccuTrac Flat Bottom	



4.9 Insulation Adhesives:

4.9.1 Unless otherwise noted, insulation adhesive application rates are as follows. Ribbons shall be applied and insulation boards shall be set in accordance with the manufacturer's published instructions.

When multiple layers(s) of insulation and/or coverboard are installed in ribbon-applied adhesive, boards shall be staggered from layer-to-layer.

The maximum edge distance from the adhesive ribbon to the edge of the insulation board shall be not less than one-half the specified ribbons spacing.

TABLE 3: INSULATION ADHESIVES (4.12)			
By	ADHESIVE		MINIMUM RATE
	TRADE NAME	REFERENCE	
Altenloh, Brinck & Co. U.S.	Trufast Roofing Adhesive	Trufast Roofing Adhesive	Continuous ribbons, 12-inch o.c.
Carlisle SynTec	Flexible FAST Adhesive	Flexible FAST	Continuous ribbons, 12-inch o.c.
GAF	LRF Adhesive M	GAF LRF-M	Continuous ribbons, 12-inch o.c.
	LRF Adhesive X	GAF LRF-X	Continuous ribbons, 12-inch o.c.
	TPO LRF Adhesive M Low Temp	GAF TPO-LRF-M-LT	Continuous ribbons, 12-inch o.c.
H.B. Fuller Company	Millennium One Step Green Foamable Adhesive	M-OSGFA	Continuous ribbons, 12-inch o.c.
	Millennium PG-1 Pump Grade Adhesive	M-PG1	Continuous ribbons, 12-inch o.c.
ICP Construction	Polyset Commercial Roof Adhesive	Polyset CRA	Continuous ribbons, 12-inch o.c.
OMG, Inc.	OlyBond 500 Adhesive (PaceCart, SpotShot or Canister)	OB500	Continuous ribbons, 12-inch o.c.
SOPREMA	DUOTACK 365	DUOTACK 365	Continuous ribbons, 12-inch o.c.

4.9.2 Unless otherwise noted, refer to Section 2.2.10.6.2 of [FM Loss Prevention Data Sheet 1-29](#) for adhered roof insulation and board-size limitations.

4.10 FT Block-Aide may be installed atop the roof deck, or to a loose-laid thermal barrier of DensDeck Prime or SECUROCK Gypsum-Fiber Roof Board, prior to installation of subsequent overlying components, which are mechanically attached through the vapor barrier to engage the structural roof deck. Refer to [FM Loss Prevention Data Sheet 1-29](#) for design and installation limitations.

4.11 The following products are interchangeable within the scope of this Evaluation Report.

TABLE 4: ACCEPTABLE ALTERNATES				
SUB-CATEGORY	By	FBC FILE (4.12)	LISTED PRODUCT	ALTERNATE
Roofing Insulation	GAF	FL16311	EnergyGuard Polyiso Insulation	EnergyGuard NH Polyiso Insulation
			EnergyGuard Ultra Polyiso Insulation	EnergyGuard NH Ultra Polyiso Insulation
	G-P Gypsum, LLC	FL1250	DensDeck Prime	DensDeck StormX Prime Roof Board

4.12 All components in the roof assembly shall have quality assurance surveillance in accordance with **F.A.C. Rule 61G20-3**. For components listed herein that are produced by a manufacturer other than the report holder on [Page 1](#) of this Evaluation Report, refer to the [Florida Product Approval](#) of the component manufacturer.



4.13 Sub-Assembly Listings and Allowable Design Pressures: See [Section 4.7](#)

TABLE 5: STEEL DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)									
SUB-ASSEMBLY TYPE B-2: MECHANICALLY ATTACHED THERMAL BARRIER, BONDED VAPOR BARRIER, BONDED INSULATION									
SUB-ASSEMBLY No.	DECK (4.3)	THERMAL BARRIER			VAPOR BARRIER	INSULATION LAYER(s)		TOP INSULATION, COVERBOARD AND/OR ROOF COVER (4.7.3)	MDP, PSF
		TYPE	FASTEN (4.6.1)	ATTACH		PRODUCT	ADHESIVE (4.9)		
S-TB/VB-1.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II" or "ACFoam III", Hunter Panels "H-Shield" or "H-Shield CG", Johns Manville "ENRGY 3", Rmax "Multi-Max FA3" or "Ultra-Max" or SOPREMA "SOPRA-ISO s", "SOPRA-ISO+ s", "SOPRA-ISO r", "SOPRA-ISO+ r", "SOPRA-ISO x" or "SOPRA-ISO+ x"	DUOTACK 365	Refer to Roof System Florida Product Approval of the Roof System Manufacturer	-45.0*
S-TB/VB-2.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Carlisle SynTec "InsulBase" or "SecurShield" or Hunter Panels "H-Shield" or "H-Shield CG"	Flexible FAST		-45.0*
S-TB/VB-3.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II" or GAF "EnergyGuard RA" or "EnergyGuard Polyiso Insulation"	M-OSGFA or GAF TPO-LRF-M-LT		-45.0*
S-TB/VB-4.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN" or "EnergyGuard Polyiso Insulation", Hunter Panels "H-Shield", Johns Manville "ENRGY 3" or Rmax "Multi-Max FA3"	M-PG1 or GAF LRF-M		-45.0*
S-TB/VB-5.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN", "EnergyGuard Polyiso Insulation" or "EnergyGuard Ultra Polyiso Insulation", Hunter Panels "H-Shield", Johns Manville "ENRGY 3" or Rmax "Multi-Max FA3"	OB500		-45.0*
S-TB/VB-6.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN" or "EnergyGuard Polyiso Insulation", Hunter Panels "H-Shield", Johns Manville "ENRGY 3", Rmax "Multi-Max FA3" or SOPREMA "SOPRA-ISO s", "SOPRA-ISO r" or "SOPRA-ISO x"	Polysset CRA		-45.0*
S-TB/VB-7.	Min. 22 ga., Type B, Grade 33 steel	0.5-inch DensDeck Prime or SECUROCK Gypsum Fiber Roof Board	4.8	1 per 4.0 ft ²	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN", "EnergyGuard Polyiso Insulation" or "EnergyGuard Ultra Polyiso Insulation", Hunter Panels "H-Shield" or "H-Shield CG", Johns Manville "ENRGY 3", Rmax "Multi-Max FA3" or "Ultra-Max" or SOPREMA "SOPRA-ISO s", "SOPRA-ISO r", "SOPRA-ISO+ r", "SOPRA-ISO x" or "SOPRA-ISO+ x"	Trufast Roofing Adhesive or GAF LRF-X		-45.0*



TABLE 6: STRUCTURAL CONCRETE DECKS - NEW CONSTRUCTION OR REROOF (TEAR-OFF)
SUB-ASSEMBLY TYPE A-1: BONDED VAPOR BARRIER, BONDED INSULATION

SUB-ASSEMBLY No.	DECK (4.3 AND 4.6.2)	VAPOR BARRIER	BASE INSULATION LAYER		TOP INSULATION, COVERBOARD AND/OR ROOF COVER (4.7.3)	MDP, PSF
			PRODUCT	ADHESIVE (4.9)		
C-VB-1.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Carlisle SynTec "InsulBase" or Hunter Panels "H-Shield"	Flexible FAST	Refer to Roof System Florida Product Approval of the Roof System Manufacturer	-112.5
C-VB-2.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II" or GAF "EnergyGuard RA" or "EnergyGuard Polyiso Insulation"	M-OSGFA or GAF TPO-LRF-M-LT		-112.5
C-VB-3.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN" or "EnergyGuard Polyiso Insulation", Hunter Panels "H-Shield", Johns Manville "ENRGY 3" or Rmax "Multi-Max FA3"	M-PG1 or GAF LRF-M		-112.5
C-VB-4.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II" or "ACFoam III", Hunter Panels "H-Shield" or "H-Shield CG", Johns Manville "ENRGY 3", Rmax "Multi-Max FA3" or "Ultra-Max" or SOPREMA "SOPRA-ISO s", "SOPRA-ISO+ s", "SOPRA-ISO r", "SOPRA-ISO+ r", "SOPRA-ISO x" or "SOPRA-ISO+ x"	DUOTACK 365		-127.5
C-VB-5.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Carlisle SynTec "SecurShield" or Hunter Panels "H-Shield CG"	Flexible FAST		-127.5
C-VB-6.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN", "EnergyGuard Polyiso Insulation" or "EnergyGuard Ultra Polyiso Insulation", Hunter Panels "H-Shield", Johns Manville "ENRGY 3" or Rmax "Multi-Max FA3"	OB500		-127.5
C-VB-7.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN" or "EnergyGuard Polyiso Insulation", Hunter Panels "H-Shield", Johns Manville "ENRGY 3", Rmax "Multi-Max FA3" or SOPREMA "SOPRA-ISO s", "SOPRA-ISO r" or "SOPRA-ISO x"	Polysset CRA		-127.5
C-VB-8.	Min. 2,500 psi structural concrete	FT Block-Aide, self-adhering	Min. 1-inch Atlas "ACFoam II", GAF "EnergyGuard RA", "EnergyGuard RH", "EnergyGuard RM", "EnergyGuard RN", "EnergyGuard Polyiso Insulation" or "EnergyGuard Ultra Polyiso Insulation", Hunter Panels "H-Shield" or "H-Shield CG", Johns Manville "ENRGY 3", Rmax "Multi-Max FA3" or "Ultra-Max" or SOPREMA "SOPRA-ISO s", "SOPRA-ISO r", "SOPRA-ISO+ r", "SOPRA-ISO x" or "SOPRA-ISO+ x"	Trufast Roofing Adhesive or GAF LRF-X		-127.5