



NEMO|etc.

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ENGINEER

TEST

CONSULT

P.E. EVALUATION REPORT (PEER)

Tremco CPG, Inc.

3735 Green Road
Beachwood, OH 44122
(800) 562-2728

PEER-TRM-001.A.R10

FL15546-R9

Date of Issuance: 04/27/2012

Revision 10: 08/20/2025

SCOPE:

This P.E. Evaluation Report (henceforth 'PEER') is issued under **F.A.C. Rule 61G20-3** and the applicable rules and regulations governing the use of construction materials in the State of Florida. The documentation submitted has been reviewed by Robert Nieminen, P.E. for compliance with the **8th Edition (2023) Florida Building Code** [sections noted herein](#).

DESCRIPTION: AlphaGrade™ and AlphaGuard™ Fluid Applied Roof Coatings

LABELING: Labeling shall be in accordance with the requirements of the Accredited Quality Assurance Agency noted herein.

CONTINUED COMPLIANCE: This PEER is valid until such time as the named product(s) changes, the referenced Quality Assurance documentation changes, or provisions of the Code that relate to the product change. Acceptance of this PEER by the named client constitutes agreement to notify Robert Nieminen, P.E. of any changes to the product(s), the Quality Assurance, or the production facility location(s). NEMO ETC, LLC requires a complete review of this PEER relative to updated Code requirements with each Code Cycle.

ADVERTISEMENT: "NEMO P.E. Evaluated" may be displayed in advertising literature. If any portion of the PEER is displayed, then it shall be in its entirety.

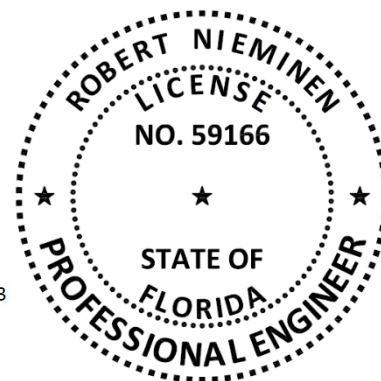
INSPECTION: Upon request, a copy of this entire PEER shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This PEER consists of pages 1 through 10.

Prepared by:

Digitally signed by
Robert Nieminen
Date: 2025.08.20
'14:50:44 -04'00

This item has been digitally signed and sealed by Robert Nieminen, P.E.
Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.
Robert Nieminen, Florida P.E. 59166, FBC ANE1983
NEMO ETC, LLC, Florida CA #32455



CERTIFICATION OF INDEPENDENCE:

1. 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.
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3. Robert Nieminen, P.E. does not have nor will acquire, a financial interest in any company manufacturing or distributing products for which the PEERs are being issued.
4. Robert Nieminen, P.E. does not have, nor will acquire, a financial interest in any other entity involved in the approval process of the product.
5. This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance unless retained specifically for that purpose.

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ROOFING COMPONENT EVALUATION:
1. SCOPE:

Product Category: Roofing
Sub-Category: Cements – Adhesives – Coatings
Product Approval Method: Method 2, Option B – Non-Codified Material, Evaluation by Engineer
Compliance Statement: AlphaGrade™ and AlphaGuard™ Fluid Applied Roof Coatings, as produced by Tremco CPG, Inc., have demonstrated compliance with the intent of the following Sections of the **8th Edition (2023) Florida Building Code** through testing in accordance with the Standards set forth herein. Compliance is subject to the [Installation Requirements](#) and [Limitations of Use](#) set forth herein.

2. STANDARDS:

<u>SECTION</u>	<u>PROPERTY</u>	<u>STANDARD</u>
104.11	Alternative materials	
1504.6	Accelerated weathering	ASTM G154
1507.15.2	Physical properties	ASTM C957
1509.2, 1523.1.1, 1523.6.5.2.12	Physical properties	Various

3. REFERENCES:

<u>ENTITY</u>	<u>EXAMINATION</u>	<u>REFERENCE</u>	<u>DATE</u>
ERD (TST6049)	ASTM C957	TRM-SC8945.03.16	03/22/2016
ERD (TST6049)	Physical properties	TRM-SC13345.10.19-1	10/14/2019
NEMO (TST6049)	Physical Properties	TRM-SC14130.04.18-1	04/16/2018
NEMO (TST6049)	Physical Properties	TRM-SC14130.04.18-2	04/16/2018
NEMO (TST6049)	Miami-Dade 13-1362	4S-TRM-18-003.08.19-A	08/16/2019
NEMO (TST6049)	Physical Properties	4p-TRM-20-SSLAP-01.A	06/12/2020
NEMO (TST6049)	Miami-Dade 20-0167	4p-TRM-20-SSLAP-05.A	11/20/2020
NEMO (TST6049)	Adhesion	4p-TRM-20-SSLAP-03.A	04/16/2021
NEMO (TST6049)	Physical Properties	4p-TRM-21-SSLAP-04.A	08/01/2022
NEMO (TST6049)	Physical Properties	4p-TRM-21-SSLAP-04.B	08/01/2022
NEMO (TST6049)	Physical Properties	4p-TRM-22-SSLAP-04.A	07/13/2022
NEMO (TST6049)	Physical Properties	4p-TRM-23-SSLAP-06.A	11/06/2024
NEMO (TST6049)	Miami-Dade PFR 13-1362	4p-TRM-23-SSLAP-04.A	03/10/2025
NEMO (TST6049)	ASTM D5665	4y-TRMCSW-SSWTP-004	08/20/2025
UL, LLC (QUA9625)	Quality Control	Service Confirmation (GERMANY)	08/09/2019
UL, LLC (QUA9625)	Quality Control	Service Confirmation (OH)	10/20/2020
UL, LLC (QUA9625)	Quality Control	Florida BCIS	Current

4. PRODUCT DESCRIPTION:

TABLE 1A: EVALUATED MAINTENANCE COATINGS & ACCESSORIES

PRODUCT	MATERIAL STANDARD	DESCRIPTION / APPROVED USE	MANUFACTURING
COATINGS:			
AlphaGrade™ Base Coat	N/A	Two component polyurethane base coat in AlphaGrade System	Cleveland, OH
AlphaGrade™ Top Coat	See Section 4.1.1	Two component polyurethane top coat in AlphaGrade System	
AlphaGuard™ BIO Base Coat	ASTM C957	Base coat in AlphaGuard BIO Fluid Applied Roof Coating	Cleveland, OH
AlphaGuard™ BIO Top Coat		Top coat in AlphaGuard BIO Fluid Applied Roof Coating	
AlphaGuard™ FC LO – Field	Miami-Dade PRF 13-1362 (04/04/14)	Two component, modified polyurethane methacrylate resin / catalyst	Cleveland, OH
AlphaGuard™ FC Catalyst	See Section 4.1.4		
AlphaGuard™ MTS Base Coat	Miami-Dade PRF 20-0167	Base coat in AlphaGuard MTS Fluid Applied Roof Coating	Cleveland, OH
AlphaGuard™ MTS Top Coat	See Section 4.1.2	Top coat in AlphaGuard MTS Fluid Applied Roof Coating	
AlphaGuard™ PUMA Base Coat	Miami-Dade PRF 13-1362	Base coat in AlphaGuard PUMA Fluid Applied Roof Coating	Twistringen, Germany
AlphaGuard™ PUMA Top Coat		Top coat in AlphaGuard PUMA Fluid Applied Roof Coating	
AlphaGuard™ PUMA Catalyst	See Section 4.1.3	Powder reactive agent to catalyze AlphaGuard PUMA products	
FLASHINGS & MASTICS:			
AlphaGuard™ FC LO – Flashing	Miami-Dade PRF 13-1362 (04/04/14)	Two component, modified polyurethane methacrylate flashing grade resin and mastic	Cleveland, OH
AlphaGuard™ FC LO – Mastic	See Section 4.1.4		
AlphaGuard™ PUMA THIX	Miami-Dade PRF 13-1362	Flashings for use with AlphaGuard PUMA	Twistringen, Germany
AlphaGuard™ PUMA Quick Flash			
REINFORCEMENTS:			
AlphaGuard™ Glass Mat	N/A	Reinforcement for use with AlphaGuard BIO or MTS	Tlaxcala, Mexico
PERMAFAB Mat		Reinforcement for use with AlphaGuard BIO, MTS or PUMA	Spartanburg, SC
PERMAFAB Max	ASTM D5665	Reinforcement for use with AlphaGuard BIO, MTS or PUMA	Spartanburg, SC
PRIMERS: Refer to Section 6 for allowable substrates			
AlphaGrade™	N/A	Two component polyurethane leveling coat for use over pre-existent gravel-surfaced, asphalt built-up roof (BUR) systems	Medina, OH
AlphaGuard™ C-Prime	N/A	Substrate primer	Kirkland, IL
AlphaGuard™ M-Prime	N/A	Substrate primer	Saegertown, PA
AlphaGuard™ PUMA Primer 107	N/A	Substrate primer	Twistringen, Germany
AlphaGuard™ PUMA VB	N/A	Substrate primer	
AlphaGuard™ WB Primer	N/A	Substrate primer	Medina, OH
Geogard® Primer	N/A	Substrate primer	Cleveland, OH
Tremco Primer/Splice Wash	N/A	Substrate primer	Chagrin Falls, OH

4.1 **Typical Nominal Properties, Non-Codified Products:**

- 4.1.1 **AlphaGrade System**, comprised of field-applied leveling coat, base coat, optional fabric and top coat, does not have a codified material standard, but meets the intent of the Code-sections set forth in [Section 2](#). The physical properties data below is offered as a point-of-reference for use by the Authority Having Jurisdiction at their discretion.

TABLE 1B: TYPICAL NOMINAL PROPERTIES ALPHA GRADE COMPONENTS				
PROPERTY	TEST STANDARD	COMPONENT		
		ALPHA GRADE (NOMINAL 240 DRY-MIL)	ALPHA GRADE BASE COAT (NOMINAL 22 DRY-MIL)	ALPHA GRADE TOP COAT (NOMINAL 21 DRY-MIL)
Tensile Strength (psi)	ASTM D412	123	193	193
Elongation at Peak Load at 73°F (%)		54	159	141
Tear Resistance (lbf)	ASTM D5147	N/A	34	36
Low Temp. Flexibility, °F	ASTM D5147	N/A	Pass -55	Pass -55
Fungi Resistance	ASTM G21	N/A	N/A	0-rating
Water Absorption, %	ASTM D5147 100 hrs at 122°F	0.1	0.8	0.8

- 4.1.2 **AlphaGuard™ MTS Fluid Applied Roof Coating**, comprised of field-applied base coat, optional fabric and top coat, does not have a codified material standard, but meets the intent of the Code-sections set forth in [Section 2](#). The physical properties data below is offered as a point-of-reference for use by the Authority Having Jurisdiction at their discretion.

TABLE 1C: TYPICAL NOMINAL PROPERTIES AT ~90-MIL THICKNESS ALPHA GUARD MTS FLUID APPLIED COATING (REINFORCED, CONTROL CONDITION)					
PROPERTY		TEST STANDARD	REINFORCEMENT		
			ALPHA GUARD GLASS-MAT	PERMAFAB MAT	PERMAFAB MAX
Peak load at 73°F (lbf/in.)	MD	ASTM D5147	102	73	139
	XMD		91	54	82
Elongation at Peak Load at 73°F (%)	MD		5	28	67
	XMD		4	20	52
Tear strength (lbf)	MD		215	79	112
	XMD		175	67	96
Dimensional stability (%)	MD		0	1	0
	XMD				
Low Temp. Flexibility, °F	MD	ASTM D5147	Pass -45	Pass -40	Pass -35
	XMD				
Fungi Resistance		ASTM G21	0 rating (Top Coat only)		

- 4.1.3 **AlphaGuard™ PUMA Fluid Applied Roof Coating**, comprised of two-component, modified methyl methacrylate waterproofing resin, catalyzed using AlphaGuard PUMA Catalyst, is field-applied in base coat, fabric and top coat applications. **AlphaGuard™ PUMA Fluid Applied Roof Membrane** does not have a codified material standard, but meets the intent of the Code-sections set forth in [Section 2](#). The physical properties data below is offered as a point-of-reference for use by the Authority Having Jurisdiction at their discretion.

TABLE 1D: TYPICAL NOMINAL PROPERTIES AT ~90-MIL THICKNESS ALPHA GUARD PUMA FLUID APPLIED COATING (REINFORCED, CONTROL CONDITION)				
PROPERTY		TEST STANDARD	REINFORCEMENT	
			PERMAFAB MAT	PERMAFAB MAX
Peak load at 73°F (lbf/in.)	MD	ASTM D5147	105	160
	XMD		110	110
Elongation at Peak Load at 73°F (%)	MD		30	75
	XMD		40	55
Tear strength (lbf)	MD		180	155
	XMD		110	140
Dimensional stability (%)	MD		0	0
	XMD		0	0
Low temperature deflection		ASTM D7264	Pass 39°F	

- 4.1.4 **AlphaGuard™ FC LO - Field**, comprised of two-component, modified polyurethane methacrylate waterproofing resin, catalyzed using AlphaGuard FC Catalyst, is field-applied in base coat, fabric and top coat applications. **AlphaGuard™ FC LO - Field** does not have a codified material standard, but meets the intent of the Code-sections set forth in [Section 2](#). The physical properties data below is offered as a point-of-reference for use by the Authority Having Jurisdiction at their discretion.

TABLE 1E: TYPICAL NOMINAL PROPERTIES AT ~90-MIL THICKNESS ALPHA GUARD FC LO - FIELD (REINFORCED, CONTROL CONDITION)					
PROPERTY		TEST STANDARD	REINFORCEMENT		
			ALPHA GUARD GLASS-MAT	PERMAFAB MAT	PERMAFAB MAX
Peak load at 73°F (lbf/in.)	MD	ASTM D5147	84	175	130
	XMD		80	160	95
Elongation at Peak Load at 73°F (%)	MD		3	35	65
	XMD		3	45	65
Tear strength (lbf)	MD		305	130	145
	XMD		295	120	105
Dimensional stability (%)	MD		0	0	0
	XMD		0	0	0
Low temperature deflection		ASTM D7264	Pass -5°F		

5. LIMITATIONS:

- 5.1 This is a building code evaluation. Neither NEMO ETC, LLC nor Robert Nieminen, P.E. are, in any way, the Designer of Record for any project on which this PEER, or previous versions thereof, is/was used for permitting or design guidance. PEERs are not to be construed as representing any attributes not specifically listed, nor are PEERs to be construed as an endorsement of the subject, or a recommendation for its use. There is no warranty by NEMO ETC, LLC or Robert Nieminen, P.E., express or implied, as to any finding or other matter in this PEER, or as to any product covered by the PEER.
- 5.2 This PEER 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.
- 5.3 This PEER does not include evaluation of fire classification. Refer to **FBC 1505** or **FBC HVHZ 1516** for requirements and limitations regarding roof assembly fire classification. Refer to **FBC 2603** for requirements and limitations concerning the use of foam plastic insulation.
- 5.4 **AlphaGrade™ and AlphaGuard™ Fluid Applied Roof Coatings** are components for use in Approved roof assemblies. Refer to the “Approved Use” in [Section 4](#) for each component. The coatings noted herein are not purported to be Roofing Systems, and their use shall be governed by and limited to applications where Roof System Product Approval is not necessary (e.g., maintenance and repair) or where the components are called out in a Roof System Product Approval.
- 5.4.1 Existing roofs shall be examined for compliance with **FBC 1511** or **FBC HVHZ 1521** to the satisfaction of the Authority Having Jurisdiction
- 5.4.2 Existing roof system and/or substrate shall meet wind uplift requirements of the project to the satisfaction of the Authority Having Jurisdiction.
- 5.5 All products listed herein shall have quality assurance audit in accordance with **F.A.C. Rule 61G20-3** requirements.

6. INSTALLATION:

- 6.1 **AlphaGrade™ and AlphaGuard™ Fluid Applied Roof Coatings** shall be applied in strict accordance with [Tremco CPG, Inc.](#) published installation instructions, subject to the Approved Use in [Section 4](#) and [Limitations of Use](#) herein.
- 6.1.1 Primers, foundation coat(s), fabric (when installed) and finish coat(s) shall be in accordance with Tremco wet-mil and dry-mil thickness requirements.
- 6.2 **Allowable Substrates:**

TABLE 2: ALLOWABLE SUBSTRATES FOR ALPHAGRADE™ SYSTEM							
SUBSTRATE			LEVELING AGENT / PRIMER	FOUNDATION COAT(s)	FABRIC	FINISH COAT(s)	SURFACING
TYPE	SURFACE	CONDITION					
Built-up roof (BUR)	Gravel	New or Existing (aged)	AlphaGrade	AlphaGrade Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGrade Top Coat	(Optional) Non-Skid Coat

**TABLE 3: ALLOWABLE SUBSTRATES FOR
ALPHA GUARD™ BIO FLUID APPLIED ROOF COATING**

SUBSTRATE			PRIMER	FOUNDATION COAT(S)	FABRIC	FINISH COAT(S)	SURFACING
TYPE	SURFACE	CONDITION					
Built-up roof (BUR)	Granule	New or Existing (aged)	(Optional) Geogard Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Metal, aluminum, copper or galvanized steel	N/A	New or Existing (aged)	AlphaGuard M-Prime	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Modified bitumen, APP	Granule	New or Existing (aged)	(Optional) AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Modified bitumen, SBS	Granule	New or Existing (aged)	(Optional) Geogard Primer or AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Single Ply, CSPE	N/A	Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Single Ply, EPDM	N/A	Existing (aged)	Tremco Primer/Slice Wash	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
			(Optional) Geogard Primer or AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Single Ply, PVC	N/A	Existing (aged)	AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Single Ply, TPO	N/A	Existing (aged)	AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Structural Concrete	N/A	New or Existing (aged)	AlphaGuard C-Prime	AlphaGuard BIO Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Urethane coating	N/A	Existing (aged)	Geogard Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat
Wood	N/A	New or Existing (aged)	AlphaGuard WB Primer	AlphaGuard BIO Base Coat	(Optional) AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard BIO Top Coat	(Optional) Non-Skid Coat

**TABLE 4: ALLOWABLE SUBSTRATES FOR
ALPHA GUARD™ MTS FLUID APPLIED ROOF COATING**

SUBSTRATE			PRIMER	FOUNDATION COAT(S)	FABRIC	FINISH COAT(S)	SURFACING
TYPE	SURFACE	CONDITION					
Built-up roof (BUR)	Granule	New or Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	(Optional) Geogard Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Metal, galvanized steel	N/A	New or Existing (aged)	AlphaGuard M-Prime	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Modified bitumen, APP	Granule	New or Existing (aged)	(Optional) AlphaGuard WB Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Modified bitumen, SBS	Granule	New or Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Single Ply, EPDM	N/A	Existing (aged)	Tremco Primer/Slice Wash	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Single Ply, PVC	N/A	Existing (aged)	Geogard Primer or AlphaGuard WB Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Structural Concrete	N/A	New or Existing (aged)	AlphaGuard C-Prime	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat
Wood	N/A	New or Existing (aged)	(Optional) AlphaGuard WB Primer	AlphaGuard MTS Base Coat	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard MTS Top Coat	(Optional) Non-Skid Coat

**TABLE 5: ALLOWABLE SUBSTRATES FOR
ALPHA GUARD™ PUMA FLUID APPLIED ROOF COATING**

SUBSTRATE			PRIMER	FOUNDATION COAT	FABRIC	SATURATION COAT	FINISH COAT(S)	SURFACING
TYPE	SURFACE	CONDITION						
Built-up roof (BUR)	Smooth	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat
Metal, aluminum, copper or galvanized steel	N/A	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat
Modified bitumen, APP	Granule	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat
Modified bitumen, SBS	Granule	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat

**TABLE 5: ALLOWABLE SUBSTRATES FOR
ALPHAguard™ PUMA FLUID APPLIED ROOF COATING**

SUBSTRATE			PRIMER	FOUNDATION COAT	FABRIC	SATURATION COAT	FINISH COAT(s)	SURFACING
TYPE	SURFACE	CONDITION						
Structural Concrete	N/A	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107 or AlphaGuard PUMA VB	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat
				AlphaGuard PUMA Base Coat	None	N/A	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat
Wood	N/A	New or Existing (aged)	(Optional) AlphaGuard PUMA Primer 107	AlphaGuard PUMA Base Coat	PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard PUMA Base Coat	AlphaGuard PUMA Top Coat	(Optional) Non-Skid Coat

**TABLE 6: ALLOWABLE SUBSTRATES FOR
ALPHAguard™ FC LO**

SUBSTRATE			PRIMER	FOUNDATION COAT(s)	FABRIC	FINISH COAT(s)	SURFACING
TYPE	SURFACE	CONDITION					
Built-up roof (BUR)	Granule	New or Existing (aged)	(Optional) AlphaGuard C-Prime or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	AlphaGuard C-Prime or AlphaGuard WB Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Metal, aluminum, copper, Galvalume®, galvanized steel, Kynar coated or lead	N/A	New or Existing (aged)	(Optional) AlphaGuard C-Prime or AlphaGuard M-Prime	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Modified bitumen, APP	Granule	New or Existing (aged)	(Optional) AlphaGuard C-Prime or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	(Optional) AlphaGuard C-Prime or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	
Modified bitumen, SBS	Granule	New or Existing (aged)	(Optional) AlphaGuard C-Prime or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
	Smooth	New or Existing (aged)	(Optional) AlphaGuard C-Prime, AlphaGuard WB Primer or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Single Ply, EPDM (black)	N/A	Existing (aged)	(Optional) Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Single Ply, CSPE (Hypalon)	N/A	Existing (aged)	(Optional) AlphaGuard WB Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Single Ply, KEE	N/A	Existing (aged)	Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Single Ply, PVC	N/A	Existing (aged)	None	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat

**TABLE 6: ALLOWABLE SUBSTRATES FOR
ALPHA GUARD™ FC LO**

SUBSTRATE			PRIMER	FOUNDATION COAT(S)	FABRIC	FINISH COAT(S)	SURFACING
TYPE	SURFACE	CONDITION					
Single Ply, TPA	N/A	Existing (aged)	AlphaGuard WB Primer or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Structural Concrete	N/A	New or Existing (aged)	AlphaGuard C-Prime	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat
Wood, plywood	N/A	New or Existing (aged)	(Optional) AlphaGuard C-Prime or Geogard Primer	AlphaGuard FC LO	AlphaGuard Glass Mat, PERMAFAB Mat or PERMAFAB Max, wet-laid	AlphaGuard FC LO	(Optional) Non-Skid Coat

7. BUILDING PERMIT REQUIREMENTS:

As required by the Building Official or Authority Having Jurisdiction to properly evaluate the installation of this product.

8. MANUFACTURING PLANTS:

Contact the named QA entity for manufacturing facilities covered by **F.A.C. Rule 61G20-3** QA requirements. Refer to [Section 4](#) herein for products and production locations having met codified material standards.

9. QUALITY ASSURANCE ENTITY:

[UL \(QUA9625\)](#): (360) 817-5512; bsai.inspections@ul.com

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