MIAMI-DADE

BUILDING CODE COMPLIANCE OFFICE (BCCO)
PRODUCT CONTROL DIVISION

MIAMI-DADE COUNTY, FLORIDA
METRO-DADE FLAGLER BUILDING
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MIAMI, FLORIDA 33130-1563
(305) 375-2901 FAX (305) 375-2908

NOTICE OF ACCEPTANCE (NOA)

Siplast, Inc.
1111 Highway 67 South
Arkadelphia, AR 71923

SCOPE:
This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed by Miami-Dade County Product Control Division and accepted by the Board of Rules and Appeals (BORA) to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Division (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. BORA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Division that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Siplast Liquid Applied Roofing Systems over Steel Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA 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 NOA consists of pages 1 through 9.
The submitted documentation was reviewed by Jorge L. Acebo

MIAMI-DADE COUNTY APPROVED

ROOFING ASSEMBLY APPROVAL

Category:	Roofing
Sub-Category:	Liquid Applied Roof Sytems
Deck Type:	Steel
Material:	PMMA
Maximum Design Pressure	**-150 psf**

TABLE 1
TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

Product	Dimensions	Test Specification	Product Description
Parapro Liquid Applied Membrane	20-kg Drums	Proprietary	A liquid applied reinforced PMMA membrane system.
Parapro Roof Membrane Resin	20-kg Drums	Proprietary	Multi-component PMMA resin.
Pro Fleece	12"x 16.5' roll 12"x 82' roll 25"x 164' roll 41"x 164' roll	Proprietary	Non-woven, needle punched, polyester fabric reinforcement.
Pro Primer R Resin	5-kg & 10-kg Drums	Proprietary	PMMA primer component for use over BUR, modified bitumen or other soft substrates.
Pro Primer W Resin	5-kg & 10-kg Drums	Proprietary	PMMA primer component for use over wood, concrete or other hard substrates.
Pro Primer T Resin	5-kg & 10-kg Drums	Proprietary	PMMA primer component for use over wood, concrete or other hard substrates.
Pro Catalyst Powder	Box of 10 3.2oz bags	Proprietary	Reactive agent for use during priming and membrane application.
Pro Clear Finish Resin	5-kg & 10-kg Drums	Proprietary	Clear, multi-component, flexible PMMA resin.
Pro Color Finish Resin	5-kg & 10-kg Drums	Proprietary	Color pigmented, multi component, flexible PMMA.
Paradiene 20	3.28' x 50'	ASTM D6163	Asphalt elastomer sheet with random fiberglass mat reinforcement for use as a base ply.
Paradiene 20 HT	3.28' x 50'	ASTM D6163	Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply.
Paradiene 20 TS	3.28' x 33.5'	ASTM D6163	High performance, semi-adhered SBS modified bitumen with random fiberglass mat reinforcement used as a base ply.
Paradiene 20 EG	3.28' x 33.5'	ASTM D6163	Heavy duty asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply.

Product	Dimensions	Test Specification	Product Description
Paradiene 20 HV	3.28' x 33.5'	ASTM D6163	Heavy duty asphalt elastomer sheet with random fiberglass mat reinforcement for use as a base ply.
Paradiene 20 P	3.28' x 50'	ASTM D6163	Modified bitumen base ply for use in Parapro roof membrane systems.
Paradiene 20 TS P	3.28' x 33.5'	ASTM D 6163	Semi-adhered modified bitumen base ply for use in Parapro systems with heat-activated adhesive strips on the underside.
Paradiene 20 TG	3.28' x 33.5'	ASTM D 6163	Asphalt elastomer sheet with random fiberglass reinforcement for use as a base ply.
Paradiene 20 HT TG	3.28' x 33.5'	ASTM D 6163	Asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply.
Paradiene 20 EG TG	3.28' x 33.5';	ASTM D 6163	Heavy duty asphalt elastomer sheet with fiberglass scrim reinforced for use as a base ply.
Paradiene 20 TG P	3.28' x 50'	ASTM D6163	Asphalt elastomer sheet with random fiberglass mat reinforcement for use as a base ply in torch.
Paradiene 20 PR	3.28' x 33.5'	ASTM D6164	Heavy duty asphalt elastomer sheet with fiberglass scrim reinforcement for use as a base ply.
Paradiene 20 SA	3.28' x 33.5'	ASTM D6163	High performance, self adhering SBS modified bitumen with random fiberglass mat reinforcement for use as a base sheet.
Paradiene 20 TS SA	3.28' x 33.5'	ASTM D6163	High performance, self-adhering SBS modified bitumen with random fiberglass mat reinforcement used as a base ply.
Paradiene 20 SA P	3.28' x 33.5'	ASTM D6163	High performance, self adhering SBS modified bitumen with random fiberglass mat reinforcement for use as a base sheet.
Paradiene 20 TS SA P	3.28' x 33.5'	ASTM D6163	High performance, self-adhering SBS modified bitumen with random fiberglass mat reinforcement used as a base ply.
Siplast PA-1125 Primer	5 or 55 gal.	ASTM D 41	Asphaltic primer.
PA-311,311M,311LS Adhesive	5 or 55 gallon	ASTM D4479	Blend of adhesives asphalts and quick drying solvents.
Para-Stik Insulation Adhesive	30 lb pressurized cylinders	N/A	A single component moisture curing urethane foam adhesive.

TABLE 2

APPROVED INSULATIONS:

Product	Description	Manufacturer (With Current NOA)
Paratherm W, Paratherm H	Isocyanurate insulation	Siplast
ACFoam II	Isocyanurate insulation	Atlas Roofing
H-Shield	Isocyanurate insulation	Hunter Panels
Multi-Max 3, FA-3	Polyisocyanurate foam insulation	Rmax
DensDeck, DensDeck DuraGuard	Water resistant gypsum	G-P Gypsum Corp.
Securock	Water resistant recycled cellulose and synthetic gypsum	USG
DuraBoard	High-density perlite roof insulation	Johns Manville

TABLE 3

APPROVED FASTENERS:

Fastener Number	Product	Description	Dimension	Manufacturer
1.	Parafast PA	Pre-Assembled Parafast Fastener and Parafast 3" Metal Plate		Siplast
2.	Parafast Roofing Fasteners	Insulation fastener for steel and wood decks		Siplast
3.	Parafast 125 Tri Rib Plates	Galvalume coated steel plates	3" round	Siplast
4.	Parafast 3" Metal Plates	Galvalume coated steel plates	3" round	Siplast
5.	OMG #12 Standard Roofgrip Fasteners	Insulation fastener		OMG
6.	OMG 3" Ribbed Galvalume Plate	Galvalume coated steel plates	3" round	OMG
7.	OMG 3" Galvalume Steel Plate	Galvalume coated steel plates	3" round	OMG
8.	Dekfast #15 HS	Insulation fastener		SFS Intec
9.	Dekfast Galvalume Steel Hex	Galvalume hex stress plate	2 7/8" x 3 ¼"	SFS Intec
10.	OMG XHD Fasteners	#15 Screws		OMG

EVIDENCE SUBMITTED:

Test Agency	Test Identifier	Description	Date
Factory Mutual	3029275 3027962	FM 4470 FM 4470	03/24/08 10/03/06
Trinity|ERD	C8500SC.11.07 S9000.03.09-R1	TAS 117-B / ASTM D6862 Physical Properties G155/D638 ASTM D1929/D2843/D635 TAS 114-D/ TAS 114-J	11/30/07 05/06/09
Momentum Technologies, Inc.	TX31G6A	Physical Properties	08/19/09

APPROVED ASSEMBLIES:

Deck Type 2I: Steel Decks, Insulated

Deck Description: Minimum 18-22 ga., 1.5" deep, wide rib, ASTM A653 or A1008 SS, grade 80 steel decking attached to ¼" steel supports spaced maximum 6 ft. o.c. using ITW Buildex Teks 5 fasteners spaced 6" o.c. at the supports and with side laps attachment using ITW Buildex Teks 1 fasteners at a maximum spacing of 30" o.c.

System Type C: All layers of insulation mechanically fastened to roof deck. Membrane is subsequently adhered to the roof insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Base Layer:	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
AC Foam II, Paratherm W, H-Shield, Paratherm H Minimum: 1.5" thick	8 & 9	1:2 ft²

Note: All layers of insulation shall be mechanically attached using the fastener density listed above. The insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate.

Primer: (Optional) Apply Pro Primer W Resin to DensDeck at a minimum rate of 0.082 lb/ft^2.

Membrane: Base coat of Parapro Roof Membrane Resin roller applied at a minimum rate of 0.42 lb/ft² onto primer or insulation; followed by one ply of Pro Fleece laid in the wet base coat; followed by a top coat of Parapro Roof Membrane Resin roller applied at a minimum rate of 0.27 lb/ft² onto the embedded Pro Fleece.

Maximum Design Pressure: **-52.5 psf.** (See General Limitation #7)

Deck Type 2I: Steel Decks, Insulated

Deck Description: Minimum 22 ga., steel decking meeting ASTM Designation A 1008 SS Grade 80 or A653 SS Grade 80 attached to minimum ¼" steel supports spaced 6 ft. o.c. using two ITW Buildex Traxx 5 fasteners and ¾" diameter low carbon washers outside diameter center hole: 0.065 in. spaced 6" o.c. at each bearing point and with side laps attachment using Traxx 1 fasteners at a maximum 12" o.c.

System Type D(1): All layers of insulation to be loose laid on roof deck with preliminary fastening. Base sheet is mechanically attached through all layers of insulation to the roof deck. Membrane is subsequently fully adhered to the roof insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Base Layer:	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
AC Foam II, Paratherm W, H-Shield, Paratherm H Minimum: 2" thick	N/A	N/A

Insulation Top Layer:	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
Securock Minimum: ¼" thick	10	N/A

Note: Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Top layer shall receive preliminary fastening as specified in RAS 117 then Base sheet shall be mechanically fastened as described below.

Base Sheet: Paradiene 20 PR base sheet is mechanically fastened through insulation layers to the deck with OMG XHD Fasteners (table 3 # 10) and OMG 2-3/4" Super XHD barbed stress plates (table 3 # 11) spaced 12" o.c. through the 4" lap and spaced 12 " o.c. along one staggered intermediate row in the field of the sheet. The side laps of the base membrane are torch adhered prior to fastening through the side laps.

Ply Sheet: Paradiene 20 TG,Paradiene 20 TG P torch adhered to the base sheet.

Membrane: Base coat of Parapro Roof Membrane Resin roller applied at a minimum rate of 0.42 lb/ft² onto ply sheet; followed by one ply of Pro Fleece laid in the wet base coat; followed by a top coat of Parapro Roof Membrane Resin roller applied at a minimum rate of 0.27 lb/ft² onto the embedded Pro Fleece.

Maximum Design Pressure: **-135 psf.** (See General Limitation #7)

Deck Type 2I: Steel Decks, Insulated

Deck Description: Minimum 22 ga., steel decking meeting ASTM Designation A 1008 SS Grade 80 or A653 SS Grade 80 attached to minimum ¼" steel supports spaced 6 ft. o.c. using two ITW Buildex Traxx 5 fasteners and ¾" diameter low carbon washers outside diameter center hole: 0.065 in. spaced 6" o.c. at each bearing point and with side laps attachment using Traxx 1 fasteners at a maximum 12" o.c.

System Type D(2): All layers of insulation to be loose laid on roof deck with preliminary fastening. Base sheet is mechanically attached through all layers of insulation to the roof deck. Membrane is subsequently fully adhered to the roof insulation.

All General and System Limitations apply.

One or more layers of any of the following insulations:

Insulation Base Layer:	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
AC Foam II, Paratherm W, H-Shield, Paratherm H Minimum: 2" thick	N/A	N/A

Insulation Top Layer:	**Insulation Fasteners Table 3**	**Fastener Density/ft²**
Securock Minimum: ¼" thick	10	N/A

Note: Please refer to Roofing Application Standard RAS 117 for insulation attachment. Insulation listed as base layer only shall be used only as base layers with a second layer of approved top layer insulation installed as the final membrane substrate. Top layer shall be walked into and adhered to Base Insulation Panels with Para-Stik roofing adhesive or Dow Chemical Insta-Stik roofing Adhesive applied at ¾" to 1" wide ribbons with minimum 6" o.c. spacing. Panels shall be allowed to set up and shall receive preliminary fastening as specified in RAS 117 then Base sheet shall be mechanically fastened as described below.

Base Sheet: Paradiene 20 PR base sheet is mechanically fastened through insulation layers to the deck with OMG XHD Fasteners (table 3 # 10) and OMG 2-3/4" Super XHD barbed stress plates (table 3 # 11) spaced 12" o.c. through the 4" lap and spaced 12 " o.c. along three staggered intermediate rows in the field of the sheet. The side laps of the base membrane are torch adhered prior to fastening through the side laps.

Ply Sheet: Paradiene 20 TG,Paradiene 20 TG P torch adhered to the base sheet.

Membrane: Base coat of Parapro Roof Membrane Resin roller applied at a minimum rate of 0.42 lb/ft² onto ply sheet; followed by one ply of Pro Fleece laid in the wet base coat; followed by a top coat of Parapro Roof Membrane Resin roller applied at a minimum rate of 0.27 lb/ft² onto the embedded Pro Fleece.

Maximum Design Pressure: **-150 psf.** (See General Limitation #7)

STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117, calculations shall be signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each sidelap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq. **Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.**
5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform with Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**

END OF THIS ACCEPTANCE